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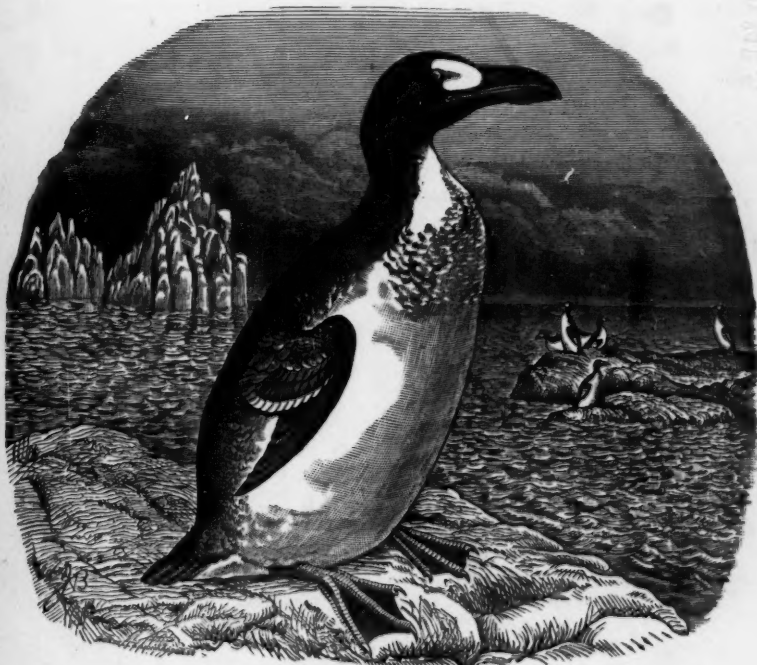
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VOLUME XXI

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¹ The date of capture given on the plate should be 1893 instead of 1896.

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PHILIPPI, DR. R. A., Santiago, Chili.....	1884
PYCRAFT, W. P., British Museum (Nat. Hist.), Cromwell Road, London, S. W.....	1902
RAMSEY, E. P., Sydney, New South Wales.....	1884
RINGER, FREDERIC, Nagasaki.....	1888
ROTHSCHILD, HON. L. WALTER, Zoölogical Museum, Tring, England.....	1898
SCHALOW, HERMAN, 15 Schleswiger Ufer, Berlin, N. W.....	1884
SHELLEY, Capt. G. E., 39 Edgerton Gardens, South Kensington, London, S. W., England.....	1884
SUCSHKIN, DR. PETER, Imperial University, Moscow, Russia.....	1903
THEEL, DR. HJALMAR, University of Upsala, Upsala, Sweden.....	1884
TRISTRAM, Rev. Canon H. B., The College, Durham, England.....	188
TSCHUSI ZÜ SCHMIDHOFFEN, VICTOR RITTER VON, Hallein, (Villa Tännenhof), Salzburg, Austria.....	1884
WATERHOUSE, F. H., 3 Hanover Square, London, W.	1889
WINGE, DR. HERLUF, Copenhagen, Denmark.....	1903
WOODHOUSE, DR. SAMUEL W., Philadelphia, Pa.....	1903
WORCESTER, Prof. DEAN C., Manila, P. I.....	1903
ZELEDON, Don José C., San José, Costa Rica.....	1884

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RATHBUN, SAMUEL F., 202 Marion Block, Seattle, Wash.....	1902
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TODD, W. E. CLYDE, Carnegie Museum, Pittsburgh, Pa.....	1901
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ARCHIBOLD, J. A., 84 Highland Ave., Buffalo, N. Y.....	1903
ARNOLD, EDWARD, 126 Van Buren St., Battle Creek, Mich.....	1894
ARNOW, ISAAC F., St. Marys, Ga.....	1903

ATKINSON, DR. DANIEL ARMSTRONG, Wilksburg, Pa.....	1899
ATKINSON, GEORGE E., Portage la Prairie, Manitoba.....	1903
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BAILEY, CHARLES E., Manning Manse, N. Billerica, Mass.....	1890
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BARNES, Hon. R. MAGOON, Lacon, Ill.....	1889
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BEARD, DANIEL CARTER, 204 Amity St., Flushing, N. Y.....	1887
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BLAKE, FRANCIS G., 57 Addington Road, Brookline, Mass.....	1901
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BOWDITCH, HAROLD, Jamaica Plain, Boston, Mass.....	1900
BOWLES, JOHN HOOPER, 401 S. G St., Tacoma, Wash.....	1891

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BRADFORD, MOSES B. L., Concord, Mass.....	1889
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BROOKS, CLARENCE MORRISON, 105 West St., Keene, N. H.....	1900
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BROWN, HUBERT H., 70 Collier St., Toronto, Ontario.....	1889
BROWN, STEWARDSON, Germantown, Philadelphia, Pa.....	1895
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BROWNSON, W. H., Advertiser Office, Portland, Me.....	1903
BRYANT, OWEN, 56 Plympton St., Cambridge, Mass.....	1903
BUCK, HENRY ROBINSON, Box 213, Hartford, Conn.....	1897
BUMPUS, Dr. HERMON C., Am. Mus. Natural History, New York City.	1901
BURGESS, JOHN KINGSBURY, Dedham, Mass.....	1898
BURKE, Wm. BARDWELL, 130 Spring St., Rochester, N. Y.....	1901
BURNETT, LEONARD E., Little Medicine, Wyo.....	1903
BURNETT, WILLIAM L., 128 N. Sherwood St., Fort Collins, Colo....	1895
BURNHAM, JOHN, Jackson, Mich.....	1903
BURTCH, VERDI, Branchport, N. Y.....	1903
BURTIS, HENRY MOTT, Babylon, N. Y.....	1897
BUXBAUM, Mrs. CLARA E., 2305 Niles St., St. Joseph, Mich.....	1895
CALLENDER, JAMES PHILLIPS, 603 Springfield Ave., Summit, N. J.	1903
CAMERON, E. S., V. Ranch, Terry, Montana.....	1903
CARLETON, CYRUS, 69 Vinton St., Providence, R. I.....	1903
CARPENTER, Rev. CHARLES KNAPP, Polo, Ill.....	1894
CARROLL, JAMES J., Camden, Texas.....	1898
CARY, MERRITT, Dept. of Agriculture, Washington, D. C.....	1898
CASE, Rev. BERT F., Middle Haddam, Conn.....	1903
CASE, CLIFFORD M., 100 Ashley St., Hartford, Conn.....	1892
CASH, HARRY A., 37 N. Main St., Providence, R. I.....	1898
CHAMBERLAIN, CHAUNCY W., 36 Lincoln St., Boston, Mass.....	1885
CHAPIN, Prof. ANGIE CLARA, Wellesley College, Wellesley, Mass...	1896
CHASE, Mrs. AGNES, 59 Florida Ave., N. W., Washington, D. C...	1896
CHILDS, JOHN LEWIS, Floral Park, N. Y.....	1900
CHRISTY, BAYARD H., 403 Frederick Ave., Sewickley, Pa.....	1901
CHUBB, SAMUEL H., 468 W. 153d St., New York City.....	1894

CLAPP, Miss M. G. B., 163 East St., Pittsfield, Mass.....	1903
CLARK, AUSTIN HOBART, 107 Audubon Road, Boston, Mass.....	1899
CLARK, EDWARD B., 341 Oak St., Chicago, Ill.....	1900
CLARK, JOSIAH H., 238 Broadway, Paterson, N. J.....	1895
CLARKE, Dr. CHARLES K., Rockwood Hospital, Kingston, Ont....	1902
CLARKE, Miss HARRIET E., 9 Chestnut St., Worcester, Mass.....	1896
CLEVELAND, Dr. CLEMENT, 59 W. 38th St., New York City.....	1903
COALE, HENRY K., Highland Park, Ill.....	1883
COGGINS, HERBERT LEONARD, 5025 McKean Ave., Germantown, Philadelphia, Pa.....	1898
COLBURN, ALBERT E., P. O. Box 212, Santa Barbara, Cal.....	1891
COLE, ROY NALL, Newnan, Ga.....	1902
COLVIN, WALTER S., Osawatomie, Kansas.....	1896
COMEAU, NAPOLEON A., Godbout, Quebec.....	1885
COMET, ARTHUR C., 54 Concord Ave., Cambridge, Mass.....	1901
COMMONS, Mrs. MARIE A., 2437 Park Ave., Minneapolis, Minn....	1902
CONANT, Mrs. MARTHA W., 243 W. 98th St., New York City.....	1901
CONGDON, JAMES W., 202 S. 9th St., La Crosse, Wis.....	1902
COOK, Miss LILIAN GILLETTE, 165 W. 82d St., New York City....	1899
COOLIDGE, JOHN TEMPLETON, 3RD, 114 Beacon St., Boston, Mass....	1903
COOLIDGE, PHILIP TRIPP, 17 Garfield St., Watertown, Mass.....	1902
COPE, ALBAN, Butler Hospital, Providence, R. I.....	1885
COPE, FRANCIS R., Jr., Dimock, Pa.....	1892
COPELAND, Dr. ERNEST, 141 Wisconsin St., Milwaukee, Wis.....	1897
COPELAND, MANTON, 40 Winthrop St., Taunton, Mass.....	1900
COUES, Dr. WILLIAM PEARCE, 90 Charles St., Boston, Mass.....	1888
COX, ULYSSES O., State Normal School, Mankato, Minn.....	1894
CRAM, R. J., 26 Hancock Ave., W., Detroit, Mich.....	1893
CRANDALL, C. W., Woodside, N. Y.....	1891
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CRONE, JOHN VALENTINE, 1319 8th Ave., Greeley, Colo.....	1902
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DAVIS, STEWART, Narragansett Pier, R. I.....	1899
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DEAN, R. H., U. S. Weather Bureau, Lexington, Ky.....	1893
DEANE, GEORGE CLEMENT, 80 Sparks St., Cambridge, Mass.....	1899
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DYCHE, Prof. L. L., Lawrence, Kansas.....	1886
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EVANS, WILLIAM B., 205 E. Central Ave., Moorestown, N. J.....	1897

EVERETT, WILLIAM M., 200 W. 99th St., New York City.....	1902
EVERETT, Miss CHRISTABEL M., 200 W. 99th St., New York City...	1902
FARR, MARCUS S., 12 Maple St., Princeton, N. J.....	1900
FARWELL, Mrs. ELLEN DRUMMOND, Lake Forest, Ill.....	1896
FARWELL, Mrs. FRANCIS COOLEY, Lake Forest, Ill.....	1898
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FELL, Miss EMMA TREGO, 1534 N. Broad St., Philadelphia, Pa....	1903
FERNALD, ROBERT HEYWOOD, Washington Univ., St. Louis, Mo....	1890
FERRY, JOHN FARWELL, 50 State St., Albany, N. Y.....	1894
FIELD, EDWARD BRONSON, 981 Asylum Ave., Hartford, Conn.....	1898
FIELD, EUGENE DWINELL, 200 Beacon St., Hartford, Conn.....	1899
FINNEY, Mrs. WILLIAM W., Churchville, Ind.....	1900
FISHER, Miss ELIZABETH WILSON, 1502 Pine St., Philadelphia, Pa...	1896
FISHER, WILLIAM H., 1318 Bolton St., Baltimore, Md.....	1895
FISHER, WILLIAM HUBBELL, Wiggins Block, Cincinnati, Ohio.....	1883
FLANAGAN, JOHN H., 392 Benefit St., Providence, R. I.....	1898
FLETCHER, Mrs. MARY E., Ludlow, Vermont.....	1898
FLINT, HARRY W., Yale National Bank, New Haven, Conn.....	1888
FOOTE, Miss F. HUBERTA, 90 Locust Hill Ave., Yonkers, N. Y....	1897
FORDYCE, GEO. L., 40 Lincoln Ave., Youngstown, Ohio.....	1901
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FOWLER, HENRY W., Acad. Nat. Sci., Logan Square, Philadelphia, Pa.	1898
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FRASER, DONALD, Johnstown, N. Y.....	1902
FREEMAN, Miss HARRIET E., 37 Union Park, Boston, Mass.....	1903
FULLER, CHARLES ANTHONY, Sumner Road, Brookline, Mass.....	1894
GAMMELL, IVES, 170 Hope St., Providence, R. I.....	1903
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GAUT, JAMES H., Dept. of Agriculture, Washington, D. C.....	1899
GERMANN, F. W., 214 S. Geneva St., Ithaca, N. Y.....	1901
GESNER, Rev. ANTHON T., Shattuck School, Faribault, Minn.....	1899
GILBERT, CLARENCE H., Portland, Oregon.....	1903
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Goss, Mrs. ALETTA W., 5475 Ridgewood Court, Chicago, Ill.....	1902
GOULD, HENRY, 648 Dundas St., London, Ontario.....	1899
GOULD, JOSEPH E., Lima, Ohio.....	1889
GRANGER, WALTER W., Am. Mus. Nat. Hist., New York City.....	1891
GREENOUGH, HENRY V., 48 Mt. Auburn St., Cambridge, Mass.....	1901
GRIFFING, MOSES BOWDITCH, Shelter Island Heights, N. Y.....	1897

GRIFFITHS, BARTRAM W., 4024 Green St., Philadelphia, Pa.....	1902
HALES, HENRY, Ridgewood, N. J.....	1890
HALL, CHARLES K., 54 Tweedle Bldg., Albany, N. Y.....	1903
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HAMFELDT, A., Morris, Ill.....	1892
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HANN, HERBERT H., 700 Springfield Ave., Summit, N. J.....	1903
HARRIMAN, Miss CORNELIA, 229 Madison Ave., New York City.....	1899
HARRIMAN, Miss MARY, 229 Madison Ave., New York City.....	1899
HARRIS, JOHN CAMPBELL, 119 S. 16th St., Philadelphia, Pa.....	1903
HARTLEY, GEORGE INNESS, 159 Grove St., Montclair, N. J.....	1901
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HARVEY, Miss RUTH SAWYER, Bond Hill, Ohio.....	1902
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HAVEMEYER, H. O., Jr., Mahwah, N. J.....	1893
HAZARD, Hon. R. G., Peace Dale, R. I.....	1885
HEAD, Miss ANNA, 2538 Channing Way, Berkeley, Cal.....	1903
HECOX, Miss LAURA J. F., Light House Keeper, Santa Cruz, Cal....	1897
HEDGES, CHARLES F., Box 24, Miles City, Montana.....	1891
HEERMANCE, EDGAR THORNTON, 364 Palisade Ave., Yonkers, N. Y.....	1903
HEIMSTREET, Dr. T. B., 2217 15th St., Troy, N. Y.....	1888
HELME, ARTHUR H., Millers Place, N. Y.....	1888
HENDERSON, Judge JUNIUS, Boulder, Colo.....	1903
HENDRICKSON, W. F., 130 12th St., Long Island City, N. Y.....	1885
HENNINGER, Rev. WALTHER F., 206 Jefferson St., Tiffin, Ohio.....	1898
HIGBEE, HARRY G., 13 Austin St., Hyde Park, Mass.....	1900
HILL, JAMES HAYNES, Box 485, New London, Conn.....	1897
HILL, Mrs. THOMAS R., 1825 Greene St., Philadelphia, Pa.....	1903
HINDSHAW, HENRY HAVELOCK, N. Y. State Museum, Albany, N. Y.....	1897
HINE, Prof. JAMES STEWART, State Univ., Columbus, Ohio.....	1899
HINE, Mrs. JANE L., Sedan, Ind.....	1890
HINTON, Miss SUSAN McV., 41 W. 32d St., New York City.....	1900
HITCHCOCK, FRANK H., Dept. of Commerce and Labor, Washington, D. C.....	1891
HODGE, Prof. CLIFTON FREMONT, Clark Univ., Worcester, Mass.....	1899
HOLDEN, Mrs. EMELINE T., 13 E. 79th St., New York City.....	1902
HOLDEN, Mrs. EDWIN B., 353 Riverside Drive, New York City.....	1903
HOLLAND, Dr. WILLIAM J., 5th and Bellefield Aves., Pittsburgh, Pa.....	1899
HOLLISTER, NED, Delavan, Wis.....	1894
HOLLISTER, WARREN D., Care of Cont. Oil Co., Albuquerque, N. M.....	1901
HOLMES, LA RUE KLINGLE, Pine Grove Ave., Summit, N. J.....	1902
HOOKE, Mrs. CHARLES PARKER, 67 Chestnut St., Springfield, Mass.....	1903
HORNADAY, W. T., N. Y. Zoölogical Park, New York City.....	1888
HORTON, Mrs. FRANCES B., 13 Brook St., Brattleboro, Vt.....	1900
HOWARD, OZORA WILLIAM, 853 S. Olive St., Los Angeles, Cal.....	1898

HOWE, CARLTON D., Essex Junction, Vt.....	1901
HOWE, REGINALD HEBER, Jr., Longwood, Brookline, Mass.....	1895
HOWES, ARCHIE MILTON, 1109 State St., Erie, Pa.....	1903
HOWLAND, RANDOLPH H., 130 Grove St., Montclair, N. J.....	1903
HUBBARD, Mrs. SARA A., 177 Woodruff Ave., Flatbush, N. Y.....	1891
HUBEL, FREDERICK C., 112 Alexandrine Ave., W., Detroit, Mich.....	1903
HUGHES, Dr. WILLIAM E., 3945 Chestnut St., Philadelphia, Pa.....	1891
HULL, WALTER B., Box 1234, Milwaukee, Wis.....	1889
HUNN, JOHN T. SHARPLESS, 1218 Prospect Ave., Plainfield, N. J.....	1895
HUNT, CHRESWELL J., 1306 N. 53rd St., West Philadelphia, Pa.....	1902
HUNTER, Miss SUSAN MORRISON, 51 Hunter Ave., Newport, R. I.....	1894
HUNTER, W. D., Box 174, Victoria, Texas.....	1899
HYDE, Miss HAZEL R., 45 Pine St., Waterbury, Conn.....	1902
INGALLS, CHARLES E., East Templeton, Mass.....	1885
INGERSOLL, ALBERT M., 818 5th St., San Diego, Cal.....	1885
IRVING, JOHN, 550 Park Av., New York City.....	1894
ISHAM, C. B., 30 E. 63d St., New York City.....	1891
JACKSON, THOMAS H., 343 E. Biddle St., West Chester, Pa.....	1888
JACOBS, J. WARREN, Waynesburg, Pa.....	1889
JANNEY, NATHANIEL E., 112 Drexel Bldg., Philadelphia, Pa.....	1899
JENKINS, HUBERT OLIVER, Stanford University, Cal.....	1902
JESURUN, Dr. MORTIMER, Douglas, Wyoming.....	1890
JOHNSON, EVERETT EDWIN, East Hebron, Me.....	1896
JOHNSON, FRANK EDGAR, 747 Warburton Ave., Yonkers, N. Y.....	1888
JOHNSON, JAMES HOWARD, Bradford, N. H.....	1894
JOHNSON, WALTER ADAMS, 1 Rutherford Place, New York City.....	1898
JOHNSON, WILLIAM S., Boonville, N. Y.....	1893
JORDAN, A. H. B., Lowell, Wash.....	1888
JUDD, ELMER T., Cando, N. Dakota.....	1895
KEAYS, JAMES EDWARD, 328 St. George St., London, Ontario.....	1899
KEIM, THOMAS DANIEL, 405 Radcliffe St., Bristol, Pa.....	1902
KELKER, WILLIAM A., Box 114, Harrisburg, Pa.....	1896
KELLOGG, Prof. VERNON L., Stanford University, Cal.....	1888
KENDALL, Dr. WILLIAM C., U. S. Fish Comm., Washington, D. C.....	1886
KENNARD, FREDERIC HEDGE, Brookline, Mass.....	1892
KEYSER, Rev. LEANDER S., 108 Third St., Canal Dover, Ohio.....	1891
KING, GEORGE GORDON, 16 E. 84th St., New York City.....	1888
KING, LE ROY, 20 E. 84th St., New York City.....	1901
KIRKWOOD, FRANK C., 1811 Maryland Ave., Baltimore, Md.....	1892
KNETSCH, ROBERT, Nunda, Ill.....	1898
KNIGHT, ORA WILLIS, 84 Forest Ave., Bangor, Me.....	1893
KNOLHOFF, FERDINAND WILLIAM, 28 Winans St., East Orange, N. J.....	1897
KNOX, JOHN C., 14 State St., Auburn, N. Y.....	1897
KNOX, JOHN COWING, Jackson, Minn.....	1899
KOBBE, WILLIAM H., 125 High St., New Haven, Conn.....	1898
KOCH, Prof. AUGUST, Williamsport, Pa.....	1891

KOHN, GUSTAVE, 136 Carondelet St., New Orleans, La.....	1886
KOPMAN, HENRY HAZLITT, 5509 Hurst St., New Orleans, La.....	1899
LACEY, HOWARD GEORGE, Kerrville, Texas.....	1899
LANO, ALBERT, Aitkin, Minn.....	1890
LANTZ, Prof. DAVID ERNEST, Agl. Exper. Station, Manhattan, Kan..	1885
LARABEE, AUSTIN P., Gardiner, Me.....	1902
LARKIN, HARRY H., 237 North St., Buffalo, N. Y.....	1903
LATIMER, Miss CAROLINE P., 19 Pierpont St., Brooklyn, N. Y.....	1898
LAURENT, PHILIP, 31 E. Mt. Airy Ave., Philadelphia, Pa.....	1902
LEE, Prof. LESLIE ALEXANDER, 3 Bath St., Brunswick, Me.....	1903
LEE, Miss MARY, 241 W. Seymour St., Germantown, Pa.....	1898
LEUTLOFF, HERMAN C. A., 626 E. 135th St., New York City.....	1896
LEVERING, THOMAS HENRY, 3327 17th St., Washington, D. C.....	1898
LEVERSON, Dr. MONTAGUE R., 81 Lafayette Ave., Brooklyn, N. Y...	1901
LIBBY, ORIN GRANT, Grand Forks, N. Dakota.....	1900
LINN, Miss HENRIETTA, 2378 N. 42nd Court, Chicago, Ill.....	1903
LINTON, Miss M. J., 163 East St., Pittsfield, Mass.....	1903
LLOYD, ANDREW JAMES, 308 Newbury St., Boston, Mass.....	1900
LOOMIS, JOHN A., Mereta, Texas	1887
LORD, Rev. WILLIAM R., 9 Park St., Boston, Mass.	1901
LORING, J. ALDEN, Owego, New York.....	1889
LOUCKS, WILLIAM E., Care of J. K. Armsby Co., 134 Market St., San Francisco, Cal.....	1902
LOWE, WILLOUGHBY P., Okehampton, Devon, England.....	1893
LYMAN, Miss EMILY R., 121 N. 18th St., Philadelphia, Pa.....	1903
MACDOUGALL, GEORGE R., 131 W. 73rd St., New York City.....	1890
MAHER, J. E., Windsor Locks, Conn.....	1902
MANN, JAMES R., Arlington Heights, Mass.....	1903
MARCH, Prof. JOHN LEWIS, Union College, Schenectady, N. Y.....	1903
MARRS, Mrs. KINGSMILL, Maitland, Fla.....	1903
MARTIN, Mrs. MARIA ROSS, Box 365, New Brunswick, N. J.....	1902
MADDOCK, Miss EMELINE, 2025 DeLancey Pl., Philadelphia, Pa.....	1897
MAITLAND, ROBERT L., 30 Broad St., New York City.....	1889
MARSH, DANIEL J., Springfield, Mass.....	1894
MASTERMAN, ELMER ELLSWORTH, New London, Ohio.....	1895
MATHEWS, Miss CAROLINE, 41 Cool St., Waterville, Me.....	1898
MAYNARD, HENRY W., Dept. of Agriculture, Washington, D. C....	1901
MCATEE, WALDO LEE, Dept. of Agriculture, Washington, D. C.....	1903
MCCLINTOCK, NORMAN, Amberson Ave., Pittsburgh, Pa.....	1900
MCCOOK, PHILIP JAMES, 32 E. 45th St., New York City.....	1895
MCEWEN, DANIEL C., 160 Stirling Pl., Brooklyn, N. Y.....	1901
MCHATTON, Dr. HENRY, Macon, Ga.....	1898
McLHENNY, EDWARD AVERY, Avery's Island, La.....	1894
McKECHNIE, FREDERICK BRIDGHAM, Ponkapog, Mass.....	1900
McLAIN, ROBERT BAIRD, cor. Market & 12th Sts., Wheeling, W. Va..	1893
McMILLAN, Mrs. EDITH E., Gorham, N. H.....	1902

McNULTY, HENRY A., Gen. Theol. Seminary, Chelsea Sq., N. Y. City.	1900
MEARNS, LOUIS DI ZEREGA, 313 S. Court St., Circleville, Ohio.	1899
MEEKER, JESSE C. A., 746 E. Main St., Bridgeport, Conn.	1899
MERRILL, HARRY, Bangor, Maine.	1883
MILLER, ANDREW JAMES, 18 Washington St., Montgomery, Ala.	1903
MILLER, Frank M., 309 Hibernia Bank, New Orleans, La.	1901
MILLER, GERRIT SMITH, Jr., U. S. Nat. Mus., Washington, D. C.	1886
MILLER, Miss MARY MANN, 827 De Kalb Ave., Brooklyn, N. Y.	1898
MILLER, WALDRON DE WITT, 309 E. 7th St., Plainfield, N. J.	1896
MILLS, HARRY C., Box 218, Unionville, Conn.	1897
MILLS, Prof. WILLIAM C., Ohio State Univ., Columbus, O.	1900
MITCHELL, Mrs. MINA BAKER, Care of Plow Co., Chattanooga, Tenn.	1898
MITCHELL, Dr. WALTON I., Metropolitan Hospital, Blackwells Island, New York City.	1893
MONTGOMERY, THOMAS H., Jr., Univ. of Texas, Austin, Texas.	1899
MOORE, ROBERT THOMAS, 67 Dana St., Cambridge, Mass.	1898
MOORE, WILLIAM HENRY, Scotch Lake, New Brunswick.	1900
MORCOM, G. FREAN, Care of C. O. Davey, 18 Endsleigh Place, Ply- mouth, England.	1886
MORGAN, ALBERT, Hartford Fire Insurance Co., Hartford, Conn.	1903
MORRIS, ROBERT O., Springfield, Mass.	1888
MORSE, GEORGE W., Box 230, Ashley, Ind.	1898
MORTON, Dr. HOWARD McILVAIN, 316 Clifton Av., Minneapolis, Minn.	1900
MUMMERY, EDWARD G., 24 E. Atwater St., Detroit, Mich.	1902
MURPHY, Dr. EUGENE E., 444 Tellfair St., Augusta, Ga.	1903
MYERS, Miss LUCY F., "Brookside," Poughkeepsie, N. Y.	1898
NASH, HERMAN W., Box 264, Pueblo, Colo.	1892
NELSON, JAMES ALLEN, Biol. Hall, Univ. of Pa., W. Philadelphia, Pa.	1898
NEWMAN, Rev. STEPHEN M., 1818 M. St., N. W., Washington, D. C.	1898
NICHOLAS, ROSS, Abington Bldg., Portland, Oregon.	1901
NICHOLS, JOHN TREADWELL, 42 W. 11th St., New York City.	1901
NICHOLS, JOHN M., 46 Spruce St., Portland, Me.	1890
NOLTE, Rev. FELIX, St. Benedict's College, Atchison, Kan.	1903
NORRIS, J. PARKER, 723 Walnut St., Philadelphia, Pa.	1886
NORTON, ARTHUR HENRY WHITELEY, Box 918, San Antonio, Texas.	1894
NOWELL, JOHN ROWLAND, Union College, Schenectady, N. Y.	1897
O'CONNOR, HALDEMAN, 25 N. Front St., Harrisburg, Pa.	1896
OGDEN, Dr. HENRY VINING, 141 Wisconsin St., Milwaukee, Wis.	1897
OLCOTT, THEODORE F., Box 176, New Dorp, N. Y.	1901
OLDYS, HENRY, Dept. of Agriculture, Washington, D. C.	1896
OLIVER, DANIEL LEET, 701 Ridge Ave., Allegheny, Pa.	1902
OLIVER, HENRY KEMBLE, 2 Newbury St., Boston, Mass.	1900
O'NEIL, EDWARD, Sewickley, Pa.	1893
OSBURN, RAYMOND CARROLL, Columbia Univ., Dep't. Zool., New York City.	1899
OSBURN, Rev. WILLIAM, Belmont Ave., Station K, Cincinnati, O.	1890

OSGOOD, HENRY W., Pittsfield, N. H.....	1901
OWEN, Miss JULIETTE AMELIA, 306 N. 9th St., St. Joseph, Mo.....	1897
PAGE, Mrs. ALICE WILSON, Englewood, N. J.....	1896
PAINE, AUGUSTUS G., Jr., 311 W. 74th St., New York City.....	1886
PALMER, SAMUEL COPELAND, Swarthmore, Pa.....	1899
PARDEE, Dr. LUCIUS CROCKER, Highland Park, Ill.....	1902
PARKE, LOUIS T., 4038 Spruce St., Philadelphia, Pa.....	1903
PATTEN, Mrs. JEANIE MAWRY, 2212 R St. N. W., Washington, D. C.....	1900
PAULMIER, FREDERICK CLARK, State Museum, Albany, N. Y.....	1902
PEABODY, Rev. P. B., New Castle, Wyo.....	1903
PEABODY, WILLIAM RODMAN, 70 State St., Boston, Mass.....	1890
PEAVEY, ROBERT W., 497 Franklin Ave., Brooklyn, N. Y.....	1903
PERRY, ELTON, 110 Baylor St., Austin, Texas.....	1902
PETTIS, Miss GRACE L., Museum Nat. Hist., Springfield, Mass.....	1903
PHELPS, Mrs. ANNA BARDWELL, Box 36, Northfield, Mass.....	1899
PHILLIPS, ALEXANDER H., Princeton, N. J.....	1891
PIERCE, A. K., Renovo, Pa.....	1891
POE, Miss MARGARETTA, 1500 Park Ave., Baltimore, Md.....	1899
POMEROY, HARRY KIRKLAND, Kalamazoo, Mich.....	1894
POOLE, ALFRED D., 401 W. 7th St., Wilmington, Delaware.....	1901
PORTER, LOUIS H., Stamford, Conn.....	1893
PRAEGER, WILLIAM E., 5535 Monroe Ave., Chicago, Ill.....	1892
PROCTOR, Miss MARY A., Franklin Falls, N. H.....	1900
PURDUM, Dr. C. C., Tyler Bldg., Pawtucket, R. I.....	1901
PURDY, JAMES B., Plymouth, Mich.....	1893
RANN, Mrs. MARY L., Manchester, Iowa.....	1893
RAUB, Dr. M. W., Board of Health, Lancaster, Pa.....	1890
RAWSON, CALVIN LUTHER, Box 33, Norwich, Conn.....	1885
READ, ALBERT M., 1140 15th St. N. W., Washington, D. C.....	1895
REAGH, Dr. ARTHUR LINCOLN, 39 Maple St., West Roxbury, Mass.....	1896
REDFIELD, Miss ELISA WHITNEY, Seal Harbor, Me.....	1897
REDINGTON, ALFRED POETT, Box 66, Santa Barbara, Cal.....	1890
REED, J. HARRIS, Aldan, Pa.....	1890
REED, HUGH DANIEL, Cornell Univ., Ithaca, N. Y.....	1900
REHN, JAMES A. G., Acad. Nat. Sciences, Philadelphia, Pa.....	1901
RHOADS, CHARLES J., Bryn Mawr, Pa.....	1895
RIBYN, ALBERT L., 219 E. Boston St., Michigan City, Ind.....	1903
RICHARDS, Miss HARRIET E., 36 Longwood Ave., Brookline, Mass.....	1900
RICHARDS, JOHN BION, Box 32, Fall River, Mass.....	1888
RICHARDSON, C. H., Jr., 435 S. El Molino Ave., Pasadena, Cal.....	1903
RICHARDSON, JOHN KENDALL, Wellesley Hills, Mass.....	1896
RICKER, EVERETT WILDER, Box 5083, Boston, Mass.....	1894
RIDGWAY, JOHN L., Chevy Chase, Md.....	1890
RIKER, CLARENCE B., 48 Vesey St., New York City.....	1885
RILEY, JOSEPH H., Falls Church, Va.....	1897
RITCHIE, SANFORD, Dover, Me.....	1900

ROBBINS, REGINALD C., 373 Washington St., Boston, Mass.....	1901
ROBINS, MRS. EDWARD 114 S. 21st St., Philadelphia, Pa.....	1895
ROBINSON, ANTHONY W., 409 Chestnut St., Philadelphia, Pa.....	1903
ROBERTS, WILLIAM ELY, Swarthmore College, Swarthmore, Pa....	1902
ROBERTSON, HOWARD, Station A, Box 55, Los Angeles, Cal.....	1901
RODDY, Prof. H. JUSTIN, State Normal School, Millersville, Pa.....	1891
ROOSEVELT, FRANKLIN DELANO, Hyde Park, N. Y.....	1896
ROOSEVELT, THEODORE, Jr., White House, Washington, D. C.....	1902
ROTZELL, Dr. W. E., Narberth, Pa.....	1893
ROWLAND, Mrs. ALICE STORY, Public Library, Plainfield, N. J.....	1897
ROWLEY, JOHN, Jr., Hastings-on-Hudson, N. Y.....	1889
SABINE, GEORGE K., Brookline, Mass.....	1903
SAGE, HENRY M., Care of H. S. Sage & Co., Albany, N. Y.....	1885
SAMPSON, WALTER BEHRNARD, 921 N. Monroe St., Stockton, Cal....	1897
SAMUEL, JOHN HUGHES, 58 Church St., Toronto, Ontario.....	1902
SAND, ISABELLA LOW, Ardsley-on-Hudson, N. Y.....	1902
SANDS, AUSTIN LEDYARD, Greenough Place, Newport, R. I.....	1902
SANFORD, Dr. LEONARD C., 216 Crown St., New Haven, Conn.....	1902
SARGENT, HARRY CLEVELAND, Chocorua, N. H.....	1900
SAVAGE, JAMES, 134 Abbott St., Buffalo, N. Y.....	1895
SAVAGE, WALTER GILES, Monteer, Mo.....	1898
SCHMITT, Dr. JOSEPH, Laval Univ., Quebec.....	1901
SCHMUCKER, Dr. S. C., 610 S. High St., West Chester, Pa.....	1903
SCHOENEBECK, AUGUST JOHN, Kelley Brook, Wis.....	1898
SCHURR, Prof. THEODORE A., 164 Linden St., Pittsfield, Mass.....	1888
SCHUTZE, ADOLPH E., 2306 Guadalupe St., Austin, Texas.....	1903
SEALE, ALVIN, Bishop Museum, Honolulu, H. I.....	1900
SEISS, COVINGTON FEW, 1338 Spring Garden St., Philadelphia, Pa....	1898
SEVERSON, HENRY P., Winneconne, Wis.....	1902
SHATTUCK, EDWIN HAROLD, Granby, Conn.....	1898
SHAW, HOLTON A., 610 4th Ave., Grand Forks, N. Dakota.....	1898
SHAW, LOUIS AGASSIZ, Chestnut Hill, Mass.....	1901
SHEIBLEY, S. B., Dept. of Justice, Washington, D. C.....	1903
SHERRILL, W. E., Haskell, Texas.....	1896
SHIELDS, GEORGE O., 23 W. 24th St., New York City.....	1897
SHOEMAKER, FRANK H., Care of Gen. Auditor U. P. R. R. Co., Omaha, Neb.....	1895
SHROSBREE, GEORGE, Public Museum, Milwaukee, Wis.....	1899
SILLIMAN, HARPER, 562 5th Ave., New York City.....	1902
SMITH, CHARLES PIPER, 2106 Central Ave., Indianapolis, Ind.....	1898
SMITH, Rev. FRANCIS CURTIS, Boonville, N. Y.....	1903
SMITH, HORACE G., 2918 Lafayette St., Denver, Colo.....	1888
SMITH, Dr. HUGH M., 1209 M St. N. W., Washington, D. C.....	1886
SMITH, LOUIS IRVIN, Jr., 3908 Chestnut St., Philadelphia, Pa.....	1901
SMITH, PHILO W., 209 W. 6th St., St. Louis, Mo.....	1903
SMITH, ROBERT WINDSOR, Kirkwood, Ga.....	1895

SMITH, THEODORE H., 58 William St., New York City.....	1896
SMYTH, Prof. ELLISON A., Jr., Polytechnic Inst., Blacksburg, Va.....	1892
SNOW, Prof. FRANCIS H., Lawrence, Kan.....	1903
SNYDER, WILL EDWIN, Beaver Dam, Wis.....	1895
SOELNER, GEORGE W. H., 1513 Meridian St., N. W., Washington, D. C.....	1903
SPAUD, Prof. ARTHUR R., 1819 Delaware Ave., Wilmington, Del.....	1901
SPAULDING, FRED B., Lancaster, N. H.....	1894
SPINNEY, HERBERT L., Seguin Light Station, Popham Beach, Me....	1900
SPRAGUE, LYNN TEW, 16 W. 5th St., Jamestown, N. Y.....	1903
SPROULL, Mrs. GRACE H., Greeley, Colo.....	1903
STACK, FREDERICK WILLIAM, 824 Park Ave., Plainfield, N. J.....	1900
STANTON, Prof. J. Y., Bates College, Lewiston, Me.....	1883
STEBBINS, Miss FANNIE A., 480 Union St., Springfield, Mass.....	1903
STEPHENSON, Mrs. LOUISE MCGOWN, Helena, Ark.....	1894
STONE, CLARENCE F., Branchport, N. Y.....	1903
STONE, DWIGHT D., R. F. D. 3, Owego, N. Y.....	1891
STURTEVANT, EDWARD, St. George School, Newport, R. I.....	1896
STYER, Mrs. KATHARINE R., Concordville, Pa.....	1903
SURBER, SHERRARD MCCLURE, Taos, N. M.....	1902
SURFACE, HARVEY ADAM, Dept. of Agric., Harrisburg, Pa.....	1897
SWAIN, JOHN MERTON, Skowhegan, Me.....	1899
SWALES, BRADSHAW HALL, 46 Larned St., W., Detroit, Mich.....	1902
SWARTH, HARRY S., 356 Belden Ave., Chicago, Ill.....	1900
SWEZEY, GEORGE, 61 Polk St., Newark, N. J.....	1901
TALLEY, Prof. THOMAS WASHINGTON, Tuskegee, Ala.....	1896
TAVERNER, PERCY A., 95 N. Grand Boulevard W., Detroit, Mich.....	1902
TAYLOR, ALEXANDER O'DRISCOLL, 132 Bellevue Ave., Newport, R. I.	1888
TEST, Dr. FREDERICK CLEVELAND, 4401 Indiana Ave., Chicago, Ill..	1892
THAYER, JOHN ELIOT, Lancaster, Mass.....	1898
THOMAS, Miss EMILY HINDS, Bryn Mawr, Pa.....	1901
THOMPSON, Miss CAROLINE Burling, W. Clapier St., Germantown, Philadelphia, Pa.....	1900
TOPPAN, GEORGE L., 18 E. 23d St., New York City.....	1886
TOWNSEND, Dr. CHAS. WENDELL, 76 Marlborough St., Boston, Mass.	1901
TOWNSEND, WILMOT, 3d Ave. and 75th St., Bay Ridge, N. Y.....	1894
TROTTER, WILLIAM HENRY, 36 No. Front St., Philadelphia, Pa.....	1899
TUDBURY, WARREN C., 47 W. 126th St., New York City.....	1903
TUFTS, LA ROY MELVILLE, Farmington, Me.....	1903
TURNER, HOWARD M., 10 Francis Ave., Cambridge, Mass.....	1903
TUTTLE, Dr. CARL, Berlin Heights, Ohio.....	1890
TWEEDY, EDGAR, 336 Main St., Danbury, Conn.....	1902
UNDERWOOD, WILLIAM LYMAN, Mass. Inst. Technology, Boston, Mass.	1900
VAN CORTLANDT, Miss ANNE S., Croton-on-Hudson, N. Y.....	1885
VAN DENBURGH, Dr. JOHN, 1626 Turk St., San Francisco, Cal.....	1893
VAN NAME, WILLARD GIBBS, 121 High St., New Haven, Conn.....	1900

VAN NORDEN, WARNER MONTAGNIE, Rye, New York.....	1899
VAN SANT, Miss ELIZABETH, 717 N. Y. Life Bldg., Omaha, Neb....	1896
VARICK, Mrs. JOHN B., 1015 Chestnut St., Manchester, N. H.....	1900
VETTER, Dr. CHARLES, 152 Second St., New York City.....	1898
WALCOTT, FREDERICK COLLIN, New York Mills, N. Y.....	1903
WALES, EDWARD H., Hyde Park, N. Y.....	1896
WALKER, Dr. R. L., 355 Main St., Carnegie, Pa.....	1888
WALLACE, Miss LOUISE BAIRD, Mt. Holyoke College, South Hadley, Mass.....	1903
WALTER, HERBERT E., Lyndonville, Vt.....	1901
WALTERS, FRANK, 7 W. 103d St., New York City.....	1902
WARREN, Dr. B. H., Box 245, Westchester, Pa.....	1885
WARREN, EDWARD ROYAL, 20 W. Caramillo St., Colorado Springs, Colo.....	1902
WATSON, Miss SARAH R., Clapier St., Germantown, Philadelphia, Pa.	1900
WEBSTER, Mrs. MARY P., 1025 5th St., S. E., Minneapolis, Minn....	1900
WEIR, J. ALDEN, 11 E. 12th St., New York City.....	1899
WELLS, FRANK S., 916 Grant Ave., Plainfield, N. J.....	1902
WENTWORTH, IRVING H., Matehuala, E. de S. L. P., Mexico.....	1900
WEST, JAMES A., 706 S. Morris Ave., Bloomington, Ill.....	1896
WEST, LEWIS H., Roslyn, N. Y.....	1887
WESTFELDT, GUSTAF REINHOLD, Box 601, New Orleans, La.....	1902
WETMORE, Mrs. HELEN H., 343 Lexington Ave., New York City....	1902
WHEELER, EDMUND JACOB, 84 Pequot Ave., New London, Conn....	1898
WHEELER, JOHN B., East Templeton, Mass.....	1897
WHEELLOCK, Mrs. IRENE G., 1040 Hinman Ave., Evanston, Ill.....	1902
WHITCOMB, Mrs. ANNABELL C., 721 Franklin St., Milwaukee, Wis....	1897
WHITE, FRANCIS BEACH, 6 Phillips Place, Cambridge, Mass.....	1891
WHITE, GEORGE R., P. O. Dept., Ottawa, Quebec.....	1903
WHITE, W. A., 158 Columbia Heights, Brooklyn, N. Y.....	1902
WICKERSHAM, CORNELIUS W., 5 Linden St., Cambridge, Mass.....	1902
WICKS, M. L., Jr., Hellman Block, Los Angeles, Cal.....	1890
WILBUR, ADDISON P., 4 Gibson St., Canandaigua, N. Y.....	1895
WILCOX, T. FERDINAND, 115 W. 75th St., New York City.....	1895
WILDE, MARK L. C., 315 N. 5th St., Camden, N. J.....	1893
WILLARD, JOHN MELVILLE, Univ of California, San Francisco, Cal.	1902
WILLIAMS, J. BICKERTON, 24 Ann St., Toronto, Ontario.....	1889
WILLIAMS, RICHARD FERDINAND, Box 521, New York City.....	1902
WILLIAMS, ROBERT STATHAM, Botanical Gardens, New York City..	1888
WILLIAMS, ROBERT WHITE, Jr., Tallahassee, Fla.....	1900
WILLIAMS, W. J. B., Holland Patent, N. Y.....	1893
WILLIAMSON, E. B., Bluffton, Ind.....	1900
WILSON, SIDNEY S., 310 S. 11th St., St. Joseph, Mo.....	1895
WINKENWERDER, HUGO AUGUST, High School, Sheboygan, Wis....	1900
WISLER, J. JAY, Columbia, Pa.....	1903
WOLFE, WILLIAM EDWARD, Wray, Colo.....	1900

WOOD, J. CLAIRE, 179 17th St., Detroit, Mich.....	1902
WOOD, NELSON R., Smithsonian Institution, Washington, D. C.....	1895
WOODCOCK, ARTHUR ROY, Corvallis, Oregon.....	1901
WOODRUFF, EDWARD SEYMOUR, 14 E. 68th St., New York City.....	1899
WOODRUFF, LEWIS B., 14 E. 68th St., New York City.....	1886
WOODWORTH, Mrs. NELLY HART, 41 Bank St., St. Albans, Vt.....	1894
WORTHEN, CHARLES K., Warsaw, Ill.....	1891
WORTHINGTON, WILLIS W., Shelter Island Heights, N. Y.....	1889
WRIGHT, FRANK S., 51 Genesee St., Auburn, N. Y.....	1894
WRIGHT, HORACE WINSLOW, 82 Myrtle St., Boston, Mass.....	1902
WRIGHT, Mrs. JANE ATHERTON, 2 Main St., Greenfield, Mass.....	1902
WRIGHT, SAM, Conshohocken, Pa.....	1895

DECEASED MEMBERS.

FELLOWS.

Date of Death

BAIRD, SPENCER FULLERTON.....	Aug. 19, 1887
BENDIRE, CHARLES E.....	Feb. 4, 1897
COUES, ELLIOTT.....	Dec. 25, 1899
GOSS, N. S.....	March 10, 1891
HOLDER, JOSEPH B.....	Feb. 28, 1888
JEFFRIES, JOHN AMORY.....	March 26, 1892
McILWRAITH, THOMAS.....	Jan. 31, 1903
MERRILL, JAMES C.....	Oct. 27, 1902
SENNETT, GEORGE BURRITT.....	March 18, 1900
TRUMBULL, GURDON.....	Dec. 28, 1903
WHEATON, JOHN M.....	Jan. 28, 1887

HONORARY FELLOWS.

BURMEISTER, HERMANN.....	May 1, 1892
GÄTKE, HEINRICH.....	Jan. 1, 1897
GUNDLACH, JUAN.....	March 14, 1896
GURNEY, JOHN HENRY.....	April 20, 1890
HARTLAUB, GUSTAV.....	Nov. 20, 1900
HUXLEY, THOMAS H.....	June 29, 1895
KRAUS, FERDINAND.....	Sept. 15, 1890
LAWRENCE, GEORGE N.....	Jan. 17, 1895
MILNE-EDWARDS, ALPHONSE.....	April 21, 1900

PARKER, WILLIAM KITCHEN.....	July 3, 1890
PELZELN, AUGUST VON.....	Sept. 2, 1891
SALVIN, OSBERT.....	June 1, 1898
SCHLEGEL, HERMANN.....	Jan. 17, 1884
SEEBOHM, HENRY.....	Nov. 26, 1895
TACZANOWSKI, LADISLAS.....	Jan. 17, 1890

CORRESPONDING FELLOWS.

ALTUM, C. A.....	Jan. 1, 1900
ANDERSON, JOHN.....	Aug. 16, 1900
BALDAMUS, EDUARD.....	Oct. 30, 1893
BLAKISTON, THOMAS W.....	Oct. 15, 1891
BOGDANOW, MODEST N.....	March 4, 1888
COOPER, JAMES G.....	July 19, 1902
CORDEAUX, JOHN.....	Aug. 1, 1899
DAVID, ARMAND.....	Nov. 10, 1900
HAAST, JULIUS VON.....	Aug. 15, 1887
HARGITT, EDWARD.....	March 19, 1895
HOLUB, EMIL.....	Feb. 21, 1902
HOMMEYER, E. F. VON.....	May 31, 1889
LAYARD, EDGAR LEOPOLD.....	Jan. 1, 1900
LYTTLETON, THOMAS, LORD LILFORD.....	June 17, 1896
MARSCHALL, A. F.....	Oct. 11, 1887
MALMGREN, ANDERS JOHAN.....	April 12, 1897
MIDDENDORFF, ALEXANDER THEODOR VON.....	Jan. 28, 1894
MOSJISOVICS, F. G. HERMANN AUGUST.....	Aug. 27, 1897
PHILIPPI, R. A.....	Aug. — 1904
PREJEVALSKI, N. M.....	Oct. 20, 1887
PRENTISS, D. WEBSTER.....	Nov. 19, 1899
PRYER, HARRY JAMES STOVIN.....	Feb. 17, 1888
RADDE, GUSTAV FERDINAND.....	— 1903
SCHRENCK, LEOPOLD VON.....	Jan. 20, 1894
SÉLEYS-LONGSCHAMPS, EDMOND DE.....	Dec. 11, 1900
SEVERTZOW, N.....	Feb. 8, 1885
STEVENSON, HENRY.....	Aug. 18, 1888
WHARTON, HENRY T.....	Sept. —, 1895

MEMBERS.

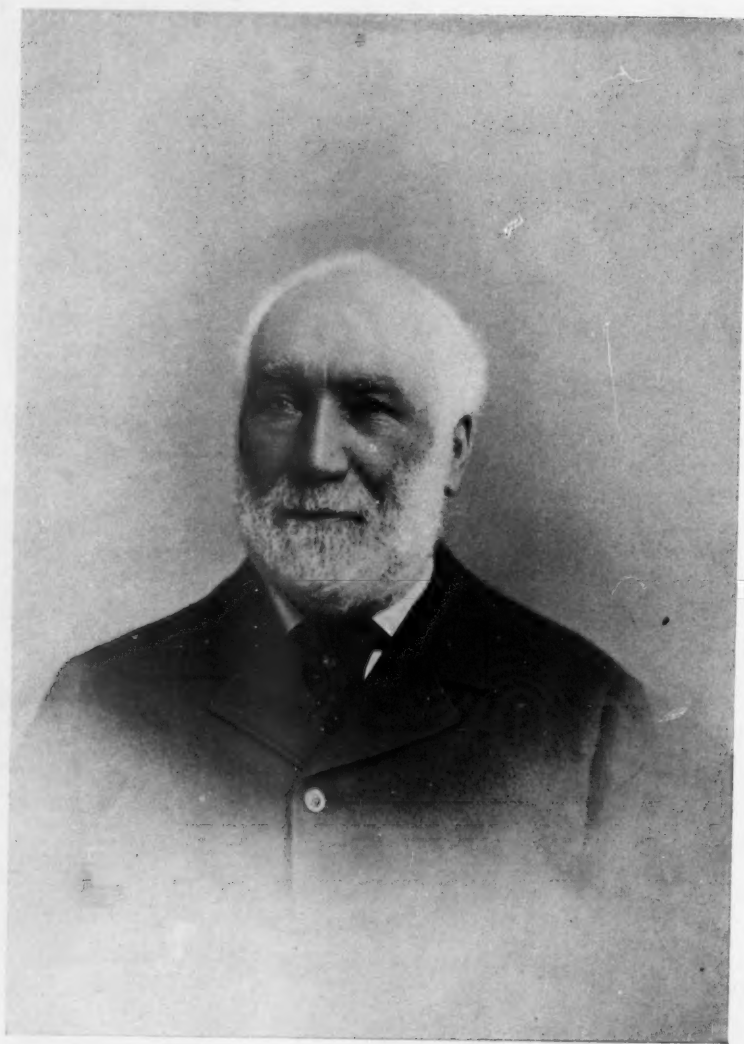
ADAMS, CHARLES F.....	May 20, 1893
ALLEN, CHARLES SLOVER.....	Oct. 15, 1893
ATKINS, H. A.....	May 19, 1885
AVERY, WILLIAM CUSHMAN.....	March 11, 1894

Deceased Members.

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BARLOW, CHESTER.....	Nov. 6, 1902
BAUR, GEORGE.....	June 25, 1898
BECKHAM, CHARLES WICKLIFFE.....	June 8, 1888
BILL, CHARLES.....	April —, 1897
BIRTWELL, FRANCIS JOSEPH.....	June 29, 1901
BOARDMAN, GEORGE A.....	Jan. 11, 1901
BOLLES, FRANK.....	Jan. 10, 1894
BRACKETT, FOSTER H.....	Jan. 5, 1900
BREESE, WILLIAM L.....	Dec. 7, 1889
BROKAW, L. W.....	Sept. 3, 1897
BROWN, JOHN CLIFFORD.....	Jan. 16, 1901
BROWNE, FRANCIS CHARLES.....	Jan. 9, 1900
CAIRNS, JOHN S.....	June 10, 1895
CALL, AUBREY BRENDON.....	Nov. 20, 1901
CAMPBELL, ROBERT ARGYLL.....	April —, 1897
CANFIELD, J. B.....	Feb. 18, 1904
CARTER, EDWIN.....	— 1900
CLARK, JOHN N.....	Jan. 13, 1903
COLBURN, W. W.....	Oct. 17, 1899
COLLETT, ALONSO M.....	Aug. 22, 1902
CORNING, ERASTUS, JR.....	April 9, 1893
COE, W. W.....	April 26, 1885
DAFFIN, WM. H.....	April 21, 1902
DAKIN, JOHN A.....	Feb. 21, 1900
DEXTER, NEWTON.....	July 27, 1901
ELLIOTT, S. LOWELL.....	Feb. 11, 1889
FAIRBANKS, FRANKLIN.....	April 24, 1895
FANNIN, JOHN.....	June 20, 1904
FOWLER, J. L.....	July 11, 1899
GESNER, A. H.....	April 30, 1895
GOSS, BENJAMIN F.....	July 6, 1893
HATCH, JESSE MAURICE.....	May 1, 1898
HOADLEY, FREDERIC H.....	Feb. 26, 1895
HOOPES, JOSIAH.....	Jan. 16, 1904
HOWLAND, JOHN SNOWDON.....	Sept. 19, 1885
INGERSOLL, JOSEPH CARLETON.....	Oct. 2, 1898
JENKS, JOHN W. P.....	Sept. 27, 1894
JOUY, PIERRE LOUIS.....	March 22, 1894
KNIGHT, WILBUR CLINTON.....	July 8, 1903
KUMLIEN, LUDWIG.....	Dec. 4, 1902
KUMLIEN, THURE.....	Aug. 5, 1888
LAWRENCE, ROBERT HOE.....	April 27, 1897
LINDEN, CHARLES.....	Feb. 3, 1888
MABBETT, GIDEON.....	Aug. 15, 1900
MARBLE, CHARLES C.....	Sept. 25, 1900
MARCY, OLIVER.....	March 19, 1899

MARIS, WILLARD LORRAINE.....	Dec. 11, 1895
McKINLAY, JAMES.....	Nov. 1, 1899
MEAD, George S.....	June 19, 1901
MINOT, HENRY DAVIS.....	Nov. 13, 1890
MORRELL, CLARENCE HENRY	July 15, 1902
NICHOLS, HOWARD GARDNER.....	June 23, 1896
NIMS, LEE.....	March 12, 1903
NORTHROP, JOHN I.....	June 26, 1891
PARK, AUSTIN F.....	Sept. 22, 1893
RAGSDALE, GEORGE H.....	March 25, 1895
READY, GEORGE H.....	March 20, 1903
RICHARDSON, JENNESS.....	June 24, 1893
SELOUS, PERCY SHERBORN.....	April 7, 1900
SLATER, JAMES H.....	Feb. —, 1895
SLEVIN, THOMAS EDWARDS.....	Dec. 23, 1902
SMALL, EDGAR A.....	April 24, 1884
SMITH, CLARENCE ALBERT.....	May 6, 1896
SOUTHWICK, JAMES M.....	June 3, 1904
STOWE, W. H.....	March —, 1895
THORNE, PLATTE M.....	March 16, 1897
THURBER, E. C.....	Sept. 6, 1896
VENNOR, HENRY G.....	June 8, 1884
WATERS, EDWARD STANLEY.....	Dec. 26, 1902
WILLARD, SAMUEL WELLS.....	May 24, 1887
WOOD, WILLIAM.....	Aug. 9, 1885
YOUNG, CURTIS C.....	July 30, 1902



Yours truly
J. M. Bennett

THE AUK:

A QUARTERLY JOURNAL OF

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JANUARY, 1904.

No. 1.

IN MEMORIAM: THOMAS MCILWRAITH.¹

BORN 25th DECEMBER, 1824.—DIED 31st JANUARY, 1903.

BY A. K. FISHER.

With Portrait.

SINCE the last memorial address was delivered the American Ornithologists' Union has lost two of its Fellows. Scarcely had it recovered from the shock caused by the death of Doctor Merrill when the sad announcement came that our venerable Canadian Fellow, one of the Founders of the Union, Thomas McIlwraith, had passed away at his home in Hamilton. For a year or more there had been a gradual breaking down of the system and while many at a distance had no idea that he was seriously ill those close to him felt assured that the final dissolution was inevitable, and it came quietly and peacefully. Four sons and three daughters survive: Thomas F. McIlwraith of Hamilton, H. P. McIlwraith of Newcastle, Penn., J. G. McIlwraith of Anderson, Ind., Dr. K. C. McIlwraith of Toronto, Mrs. Service of Detroit, Mrs. Holt of Quebec, and Miss Jean McIlwraith, the authoress. Another daughter died in infancy, in 1864, and death did not again enter

¹ An address delivered at the Twenty-first Congress of The American Ornithologists' Union, Philadelphia, Penn., Nov. 17. 1903.

this happy household until 1901 when his good wife passed away—a calamity from which he never fully recovered.

The genial influence of Mr. McIlwraith's life has been associated with my own for many years. Early in the seventies, while the nucleus of my natural history library was forming, there came into my possession a paper entitled 'A list of Birds observed near Hamilton, Canada West,' by Thomas McIlwraith. This publication, although not exhaustive, for some reason appealed to me and I often wondered about the personality of its author, then a stranger. I was much impressed with his account of the capture of a fine Eagle having the bleached and weathered skull of a weasel attached to the skin of the throat by its locked teeth, and shared the interest and surprise he must have experienced when this odd memento of a former struggle came to his notice. Later when this genial-hearted Scotch-Canadian came to New York in 1883 to assist in organizing the American Ornithologists' Union, this early association, simple as it was, had the effect of bringing us together and soon paved the way to lasting friendship.

Mr. McIlwraith was born in Newton, Ayrshire, Scotland, on Christmas day, 1824, and therefore at the time of his death, January 31, 1903, was a little over 78 years old. Early in 1846, soon after he became of age, he went to live in Edinburgh where he remained for nearly three years completing his education and fitting himself for the varied duties of life. At the end of this period he returned to his native town to assume the management of the gas works.

In October, 1853, he married Miss Mary Park, daughter of Baillie Hugh Park, and sailing with his bride for America reached Hamilton, Canada, on November 9. He was called to that city to superintend the gas works, as manager of the corporation, and served in that capacity until 1871, when he bought the Commercial Wharf with the coal and forwarding business connected with it. He continued in this business until about ten years ago, when he retired and was succeeded by his eldest son, Thomas F. McIlwraith. Besides being successful in private business, he held prominent positions on the boards of directors of banks and insurance companies, and was for many years president of the Mechanics Institute. Mr. McIlwraith was a Liberal in politics and in 1878 took an active part in municipal affairs, representing his ward in

the city Council. He was a prominent member of the Central Presbyterian Church of Hamilton. When the American Ornithologists' Union established the Committee on the Migration of Birds he became a member and was appointed Superintendent of the Ontario District, which position he held for a number of years. In 1889 he was elected a member of the Council of the Union for that year.

It is stated that his early interest in Canadian ornithology was aroused by seeing some stuffed specimens, including a Flicker and a Kingfisher, which had been brought from the Provinces to Scotland. Although actively engaged in business enterprises of various kinds he nevertheless was able to devote odd moments to his favorite study of ornithology, and before he had been long in Hamilton had formed quite an extensive collection of mounted birds. This collection, which grew to be a representative one, is said to have been made up of selected specimens and included many birds that are very rare or no longer found in Ontario at the present day.

Mr. McIlwraith's home, 'Cairnbrae,' was situated on the shores of the bay, and, surrounded as it was by extensive grounds filled with trees and shrubbery, formed an ideal home for a student of ornithology. It was a natural resting place for numerous migrants, and there in the early morn or cool of evening he secured many rare specimens with which to enrich his cabinet. There on May 16, 1884, he found the remains of a Yellow-breasted Chat, and thus added a new bird to the list of Ontario species. But though much of his material was drawn from this place, yet it must not be understood that other collecting grounds were neglected because they were less promising or more difficult of access, for he knew every nook and corner of the surrounding country where the rarest species might be found, and he did not hesitate to brave exposure and fatigue in search of them. It was not until his youngest son, Kennedy C. McIlwraith, became interested in ornithology and accompanied him in field excursions that the collection of bird skins reached any considerable proportion. Association with his young companion increased his enthusiasm for collecting and made field excursions much more attractive to him.

Mr. McIlwraith evidently worked out his early ornithological problems alone and had to depend largely on his own resources for the identification of the specimens he was collecting and mounting. His 'List of Birds of Hamilton, C. W.,' published in the *Canadian Journal*, in July, 1860, was arranged after the system of Audubon, showing pretty conclusively that the personal aid and encouragement of Professor Baird, that great man to whom so many naturalists are profoundly indebted, had not reached him, though he probably had some of Professor Baird's publications in his library. The absence of published records of the birds of Ontario, and of ornithological companions did not discourage him, for with patient observation and study he soon was able to outline a list which served as a foundation for his later works. This experience, coupled with his genial, friendly nature, made him ever anxious to give encouragement and advice, and many there are who will miss his long and instructive letters. My own correspondence with him commenced in the winter of 1884. In the course of time his letters came with a good deal of regularity and were always interesting whether they related to field experiences, the routine of everyday life or were more strictly personal in their character. Our intercourse closed with a letter which I wrote about a month before his death, for on the double anniversary of Christmas and his birthday I rarely neglected to write to wish him the compliments of the season. I afterwards heard through his son that he was pleased when he received the letter but was too indisposed to pen even a brief acknowledgment.

His style was always lucid and entertaining, whether in private correspondence or in published papers, and it is much to be regretted that his publications were not more numerous. His earliest contribution to ornithological literature appeared in the 'Canadian Journal of Industry, Science and Art,' for July, 1860, under the title 'List of Birds observed in the vicinity of Hamilton, C. W., arranged after the system of Audubon.' "The object," he says, "in preparing the following list, has been to afford such information as may be of use, should inquiry at any future period be made regarding the birds frequenting this part of the country. In its present state, the list has been drawn up from observations made during occasional excursions within a period of four years.

Those who are acquainted with the subject will see that it is necessarily incomplete; but it will be easy to add the names of such species as may yet be found. In order that the list may be strictly local, no species has been mentioned which has not been found within six miles of the city limits."

The list included 202 species, which speaks well for his ornithological activity during the four years prior to its appearance. Many of the annotations are of interest from the standpoint of distribution and abundance forty years ago. Under the capture of *Lanius ludovicianus* he says: "Two individuals shot in April, 1860. Not observed prior to that date." In a footnote he makes the following statement: "It is possible that this may prove to be the *Collyrio excubitoroides* of Baird, as, according to that author, *L. ludovicianus* is found only in the South Atlantic and Gulf States; while *C. excubitoroides* has been gradually advancing from the west, and might be expected to occur about this time. Without comparing specimens, it is difficult to distinguish between the two."

It is of interest to note that the only trinomial appearing in the list (in the case of the Lesser Scaup Duck) is written in the recent approved style, without the interpolation of var., comma, or Greek letter. In the 'Canadian Journal' for January (pp. 6-18) and March, 1861 (pp. 129-138), appeared 'Notes on the Birds observed near Hamilton, C. W.' In these notes Mr. McIlwraith gives a most entertaining account of the birds found in the vicinity of his home, treated in groups and prefaced by remarks on Wilson, Audubon and the recent ornithological activity in the United States.

The following extract relating to Grebes is of interest at the present time: "In some parts of the European continent the skin of the Grebe is much prized as trimming for ladies' dresses; and in olden time, when the fowling piece was a less perfect instrument than at present, considerable difficulty was found in supplying the demand, as the Grebe being a most expert diver, disappeared at the first flash of the gun, and was under water ere the shot could reach it. Since the invention of the percussion cap, however, they are more readily killed, and were any of our Hamilton ladies desirous of having a dozen or two of Grebes skins for trimming, I have no doubt the birds would be forthcoming. At present there

being no demand for the *skins*, and the *flesh* being unsuitable for the table, they are not much disturbed."

In 1866 he published in the 'Proceedings of the Essex Institute' (Vol. V, pp. 79-96) an annotated 'List of Birds observed near Hamilton, Canada West,' which included 241 species. This list was prepared in the same careful manner as his previous papers, and its wide distribution brought Mr. McIlwraith more prominently to the notice of leading ornithologists in the United States, with many of whom he maintained a life-long correspondence that proved of mutual benefit. A few notes followed in the 'Bulletin of the Nuttall Ornithological Club,' Vol. VIII, pp. 143-147, in 'The Auk,' Vol. I, pp. 389, 395, and in the 'Canadian Sportsman and Naturalist,' Vol. III, pp. 198-200, 207. Finally in 1887 he published his most important work, 'The Birds of Ontario.' On April 2, 1885, he had read before the Hamilton Association a paper entitled 'On Birds and Bird Matters' which was most enthusiastically received and the Association at once requested the privilege of publishing the communication with any additions which he cared to furnish. Accepting the offer he promptly prepared the manuscript, but delayed publication so that the new arrangement of the American Ornithologists' Union Check-List, then in press, might be adopted. In the twenty-one years that had elapsed since the previous list was prepared 61 species of birds had been added to the fauna of Ontario, making a total of 302 species for the Province. This publication was so highly appreciated, and the consequent demand for copies so great, that the edition was speedily exhausted and a new one was of necessity planned. Thus was evolved the enlarged and revised edition of the 'Birds of Ontario,' covering 317 species, which appeared in 1894 and formed a most fitting and lasting monument.

A reviewer in 'The Auk' speaks of this work as follows: "It is with great pleasure that we welcome this valuable handbook, revised to date, much enlarged, and in a dress more befitting its scientific importance and popular interest. In place of the introductory essay 'On Birds and Bird Matters' of the first edition, we have here a few pages on the general subject, with special reference to migration, followed by a dozen pages of directions as to how to collect and prepare specimens for the cabinet.

"The species treated number 317 as against 302 in the first edition, to which nearly 400 pages of the work are formally devoted, giving about a page and a quarter to each species. The technical, descriptive portion of the text is printed in small type, the biographical in much larger type. The whole has evidently been carefully revised, and much new matter added to the biographies, which in many instances have been to a large extent rewritten, the recent literature of the subject having been placed under contribution. As the author himself says: 'In the present edition, it has been my object to place on record, as far as possible, the name of every bird that has been observed in Ontario; to show how the different species are distributed throughout the Province; and especially, to tell where they spend the breeding season. To do this, I have had to refer to the notes of those who have visited the remote homes of the birds, at points often far apart and not easy of access, and to use their observations, published or otherwise, when they tend to throw light on the history of the birds observed in Ontario.' Credit is of course duly given for the information thus obtained.

"As ornithologists well know, the author of the 'Birds of Ontario' is well equipped for his task, and, as would be expected, has done his work well, the second edition being fully abreast of the subject, the few faults of the first edition having been corrected, and the more important recent discoveries in the field here covered being duly incorporated. The text is illustrated with numerous cuts, though none of them appear to be here for the first time published. An excellent portrait of the author forms a fitting frontispiece to the volume, which will doubtless prove a boon to the bird lovers of Ontario and adjoining Provinces and States."

ON THE HABITS OF THE LAYSAN ALBATROSS.

BY WALTER K. FISHER, STANFORD UNIVERSITY, CALIFORNIA.

Plates II-VII.

THE magic name of Laysan¹ will ever bring to my mind the picture of innumerable Albatrosses thickly scattered in reposeful attitudes over a broad stretch of bare phosphate rock, near the southern extremity of the islet. Here in years past the indefatigable Japanese laborers had scraped a plain quite free of all the marketable phosphate rock, and had left about the borders several piles of the valuable mineral. Since then the gonies have made themselves at home, and have completely preempted the site. From the top of one of these hillocks I spent odd breathing moments, watching the life in this largest rookery of the island, because even the slight advantage of fifteen feet would bring much into view that before was hidden. We were agreed in calling this *the* rookery, since here in a given space were more birds than elsewhere on the island. And besides a very convenient road led to it from Mr. Schlemmer's quarters. One might ask, "Why mention the road?" The Bonin Petrels (*Estrelata hypoleuca*) tunnel in the soft soil in countless numbers, and if one crosses the upper slopes of the island he must walk at least one half mile before gaining the solid ground near the lagoon. Nearly every other step through this area will carry him abruptly into the subterranean tunnels of these sobbing birds, and as one of our party suggested the novelty quickly wears off in the midday sunshine. So it happened we patronized the road, and our eager strolls often either ended or began near the rookery, where also there was a brackish water pond much frequented by curlews and ducks.

¹ Although the notes which form the basis of this paper have already been published in 'Birds of Laysan and the Leeward Islands, Hawaiian Group' (U. S. Fish Commission Bulletin for 1903, pp. 1 to 39, plates 1 to 10), the writer believes an account of the peculiar habits of the Albatross, with illustrative photographs, will be of interest to readers of 'The Auk.' For a short note descriptive of Laysan and its bird life the reader is referred to the October, 1903, issue of this journal, page 384. Unless otherwise stated the plates refer to *Diomedea immutabilis* Rothschild.



FINALE OF ALBATROSS DANCE - THE DUET.

The Laysan Albatross (*Diomedea immutabilis*), however, is distributed all over the island with the single exception of the sea beaches, which on all sides saving the west are colonized by the Black-footed Albatross (*D. nigripes*). The former species far outnumbers *nigripes*, and if actually not the most numerous inhabitant of the island is at any rate the most conspicuous and interesting. The Laysan Gony, or 'Gooney' as sailors pronounce it, very evidently prefers the open to the bushy area, for the flat plain surrounding the lagoon is its favorite habitat, and we found the young here in far the greatest numbers. This great colony extended all the way around the lagoon, but certain portions were more congested than others, as 'the rookery' for example, spoken of above. Young *immutabilis* were also found sprinkled rather thickly over the remainder of the island through the bushy grass area, preëmpted by petrels, and they even affected the windy slopes above the beaches. Only a very few *nigripes*, however, were detected in the central portion of the island, and these of course were widely scattered among *immutabilis*.

The rookeries present a very lively scene. At certain times of day the greater number of the adults are off to sea fishing, but there are always enough left at home to constitute about one third of the total number, the remainder being the young. If these are not disporting themselves in ridiculous attitudes, the old birds form a sufficient diversion with their endless dance and song. In Plate III, figure 1, a view is given looking over the rookery. Most of the birds here are young, the old ones being away at sea. Figure 2 is a characteristic scene on the shore of the lagoon, the picture having been taken in the afternoon when most of the old birds had returned from their morning's fishing. The dark area to the left is covered with beautiful purplish-pink flowered *Sesuvium portulacastrum*.

At the time of our visit the young were nearly four months old, and were quite as heavy as the adults, although the permanent feathering was present only on the lower parts. They were everywhere. My impression every time I crossed the petrel cities was that each great tussock of grass harbored a young Gony in its shadow, ready to dart forward and try the quality of my trousers. Mr. R. H. Beck has suggested segments of stove pipe as an effective armor in crowded bird colonies, especially as proof

against boobies, and I am inclined to agree with him. If we brushed too near the young Gonies they were quick to resent the intrusion, and flew into a rage, leaned forward and snapped their beaks rapidly in an attempt to strike terror to our hearts. Or frequently they would waddle out of their shady retreat and attack us, as it were, on our own ground, stumbling forward in wobbly efforts to reach us. Sometimes they would trip up in a petrel's hole or fall clumsily forward on their chins, and promptly disgorge their breakfast at us. Unless my observation is lacking, they always seemed to stumble preparatory to this fusillade, which once delivered left them looking very dejected indeed, as hunger is their chief trouble. Usually after the first paroxysm is over one can stroke them with little danger of scratched hands. They maintain a small fire of objection, with impotent nips, or try to sidle off. But occasionally a youngster is fully aware of his powers.

When undisturbed these absurd creatures sit for hours on their heels with their feet tilted in air, gazing stupidly ahead, with little intelligence in their stolid countenances. (Plate VI, Fig. 2.) They are peaceable as a rule, but sometimes engage in mild squabbles with youthful neighbors. The shallow basin-like hollow in which the egg is deposited is the young Albatross's home, and it usually does not stray far, except on these little forays. But later the same feeling of growing strength leads them to slowly fan their wings from time to time. During a light shower we saw a considerable colony thus engaged, the wave of motion passing far away, as new companies caught the enthusiasm. The movements were kept up for some minutes and proved a novel sight. I have seen young birds collect dried grass and similar material, which happened to be within reach, and carefully cover the hollow in which they were sitting, as if trying to form some sort of cushion.

A spirit of inquiry also sometimes leads the young Gony into trouble. We found one buried to its neck in a collapsed petrel burrow, yet still living. From the condition of the surrounding soil it was evident that the creature had been in this predicament for some time, and had been faithfully tended by its parents. Nor did it fancy being dug out, but objected most vigorously to our interest. When finally restored to a normal position, it took a

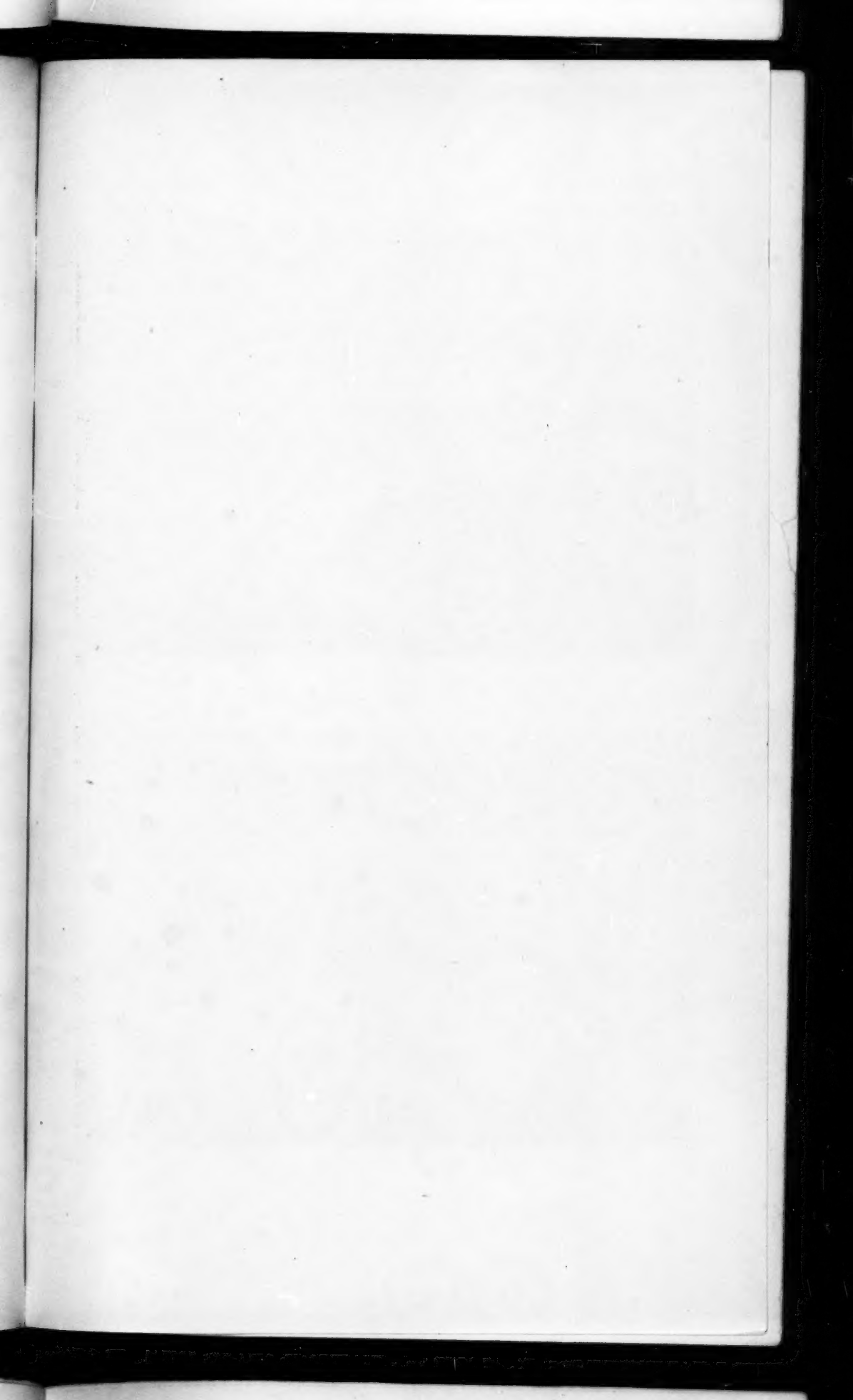




FIG. 1. ROOKERY OF LAYSAN ALBATROSS.



FIG. 2. NEAR THE LAGOON, LAYSAN

better view of matters and began to preen its feathers. But even with these vicissitudes, and the persecution of jealous mothers of other young (to be related presently) they have few amusements to vary the monotony of the long day, for in this topsy-turvy land it is the grown-up folks who play while the young are grave and demure.

The old birds received us at once on equal terms with any feathered inhabitant of the island. They did not care a whit for our presence, and continued their domestic occupations and amusements as if we were part and parcel of the community. They would not tolerate any familiarity, however, and if we attempted to stroke their plumage they backed off with agility, unless hindered by some obstructing grass tussock, when their surprise was amusing to witness. They have a half-doubting inquisitiveness, and if we sat quietly among them, they would sooner or later walk up to examine us. (Plate IV, Fig. 2.) One bird became greatly interested in the bright aluminum top to my tripod, which it carefully examined from all sides. Finally it tested the cap with its beak, and appeared much surprised, yet pleased, with the jingling sound, repeating the experiment until satisfied.

The old birds have an innate objection to idleness, and so for their diversion they spend much time in a curious dance, or perhaps more appropriately a 'cake-walk.' This game or whatever one may wish to call it, very likely originated in past time during the courting season, but it certainly has long since lost any such significance. I believe the birds now practise these antics for the pure fun they derive, and should anyone challenge my belief that birds are capable of such a high degree of intelligence as to discriminate so finely, I would be tempted to answer: "Go to Laysan and be convinced." Let us imagine we are on the island, and can stop for a moment to watch a pair of Gonies close at hand. We will have some difficulty in choosing, for from where we are seated, among the grass, near the edge of the plain, we can easily count twenty-five couples hard at play. This is what we see.

At first two birds approach one another, bowing profoundly and stepping heavily. They swagger about each other, nodding and

courtesying solemnly, then suddenly begin to fence a little, crossing bills and whetting them together, sometimes with a whistling sound, meanwhile pecking and dropping stiff little bows. (Plate V, Fig. 1.) All at once one lifts its closed wing and nibbles at the feathers beneath, or rarely, if in a hurry, quickly turns its head. The partner during this short performance, assumes a statuesque pose, and either looks mechanically from side to side, or snaps its bill loudly a few times. (Plate V, Fig. 2.) Then the first bird (to the left of the picture) bows once, and pointing its head and beak straight upward, rises on its toes, puffs out its breast, and utters a prolonged, nasal, *Ah-h-h-h*, with a rapidly rising inflection, and with a distinctly 'anserine' and 'bovine' quality, quite difficult to describe. While this 'song' is being uttered the companion loudly and rapidly snaps its bill. (Plate VI, Fig. 1.) Often both birds raise their heads in air as shown by Plate II, and either one or both favor the appreciative audience with that ridiculous, and indescribable bovine groan. When they have finished they begin bowing to each other again, rapidly and alternately, and presently repeat the performance, the birds reversing their rôle in the game or not. In the most successful dances the movements are executed in perfect unison, and this fact much enhances the extraordinary effect. The pictures convey but a poor likeness of the actual scene; the wonderful sky and sunshine, the spotless and shining plumages, the droll cries, and most important the actual living presence of the splendid birds themselves. It is an experience never to be forgotten.

There seems to be no very hard and fast lines to these antics, but variations occur, and certain stages may be abbreviated or prolonged to suit the whim of the individual. The majority of cases, however, follows the sequence I have indicated. The attention of the reader is called to the fact that Plate V, Figs. 1 and 2, together with Plate II, form a series, taken in rapid succession, of the same pair of individuals. Plate VI, Fig. 1, representing the more usual finale of the dance, is from a pair of birds very near the above, and was taken a few moments later. The pair represented in Plate II, after their splendid exhibition, as if having knowingly done their best for me, quit entirely and walked deliberately away. It is possible that this figure represents the 'grand finale' of the whole performance, but I have only this observation

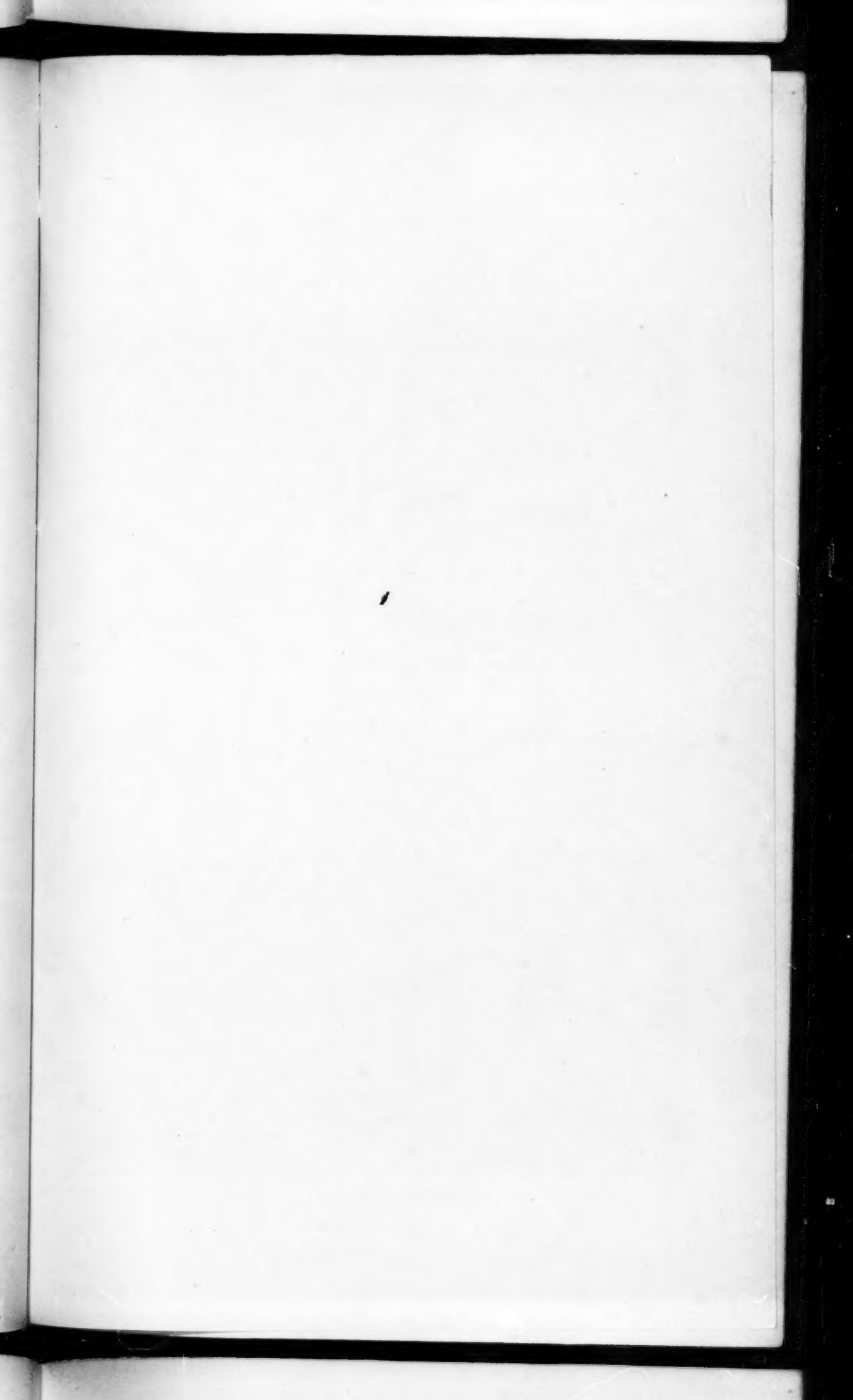




FIG. 1. A CORNER IN ONE OF THE COLONIES.



FIG. 2. AMONG THE LAYSAN ALBATROSSES.

to offer. In the numerous other cases in which I saw *both* birds 'sing,' I do not remember whether they continued thereafter or not.

It is very amusing to watch three engage in the dance, one attempting to divide its attention between two. This 'odd' bird starts by bowing to the first partner, whom he suddenly forsakes with a final deprecatory nod, and takes up the thread of the dance with the second. The latter always seems ready to join in, since he has been keeping up a sort of mark-time in the movements. Thus the single one keeps switching back and forth, trying as it were, to be on good terms with both partners at once. Three do not keep this up very long, however, since the odd bird either shows a preference for one of the partners and ignores the other entirely, or walks off to seek a new acquaintance. But throughout it all they are always exceedingly polite, and never lose their temper in any way.

Occasionally while 'cake-walking' one will lightly pick up a straw or twig, and present it to the other, who does not accept the gift, however, but thereupon returns the compliment, when straws are promptly dropped, and all hands begin bowing and walking about as if their very lives depended upon it.

Several times at this stage of affairs I have walked quietly among a group of the busy creatures, and have begun to bow very low, imitating as nearly as possible the manner of the Gonies. They would all stop and gaze at me in astonishment, but recovering their usual equanimity almost at once would gravely return my bows and walk around me in puzzled sort of way, as if wondering what kind of a bird I might be. I thought of trying this because in Rothschild's 'Avifauna of Laysan' (which we had taken with us on the steamer 'Albatross') the following extract is given from Kittlitz's notes on the birds of Laysan.

"When Herr Isenbeck met one he used to bow to it and the Albatrosses were polite enough to answer, bowing and cackling. This could easily be regarded as a fairy tale; but considering that these birds, which did not even fly away when approached, had no reason to change their customs, it seems quite natural."¹

¹ Extract from Avifauna of Laysan, etc., p. iii, (F. H. v. Kittlitz in: Museum Senckenbergianum, I, pp. 117 et seq.)

I found that in most cases the birds would bow to me if they were interrupted in their dance, or if they had very recently been playing, but would not bow at all if accosted near their young, or when standing idle. Unusual as this trait may appear it exemplifies again what extraordinary birds Albatrosses really are.

I saw the Black-footed Albatrosses (*D. nigripes*) rather seldom engaged in the dance, and indeed they impress one as more matter-of-fact creatures. The only difference which was observed in the ceremony as carried out by the two species, is that *nigripes* spreads its wings slightly (the metacarpus or 'hand' being folded closed) when it lifts its head to utter the nasal song.

If we wander over the island on a moonlight night a strange scene greets us. Nocturnal petrels and shearwaters are wide-awake and are sobbing and yowling as if all the cats in a great city had tuned up at once. Back and forth in the weird light flutter shadowy forms, and from beneath our feet dozing young *Gonies* bite at us in protest. Down by the lagoon where the herbage is short we can see for some distance, and the ghostly forms of Albatrosses shine out on all sides, busily bowing and fencing, while the nasal sounds of revelry are borne to us from far across the placid lagoon, and we know that in other parts of the island the good work is still progressing. And so in the leisure moments of the long summer days, and far into the night, these pleasure-loving creatures seem to dance for the joy of dancing and only work because they must.

But in their hours of toil they hie themselves off to sea, and scour the waves for the elusive squid, which is a staple article of diet for the larger members of the vast bird population, the gannets, perhaps, excepted. About sunrise the main body of the white company begins to return, and for several hours they straggle in, tired but full, and seek their sleepy children, who are soon very much awake. Although the Laysan Albatrosses undoubtedly do a small part of their fishing during the day, I cannot help but feel, from the nocturnal or crepuscular habits of their food — certain cephalopods — and the prevalent feeding hours, that the major portion is done in the very early morning, perhaps from just preceding dawn till light. I noted particularly during the one day I was on the steamer, while she was dredging in the





FIG. 1. FIRST STAGE IN DANCE, FENCING.

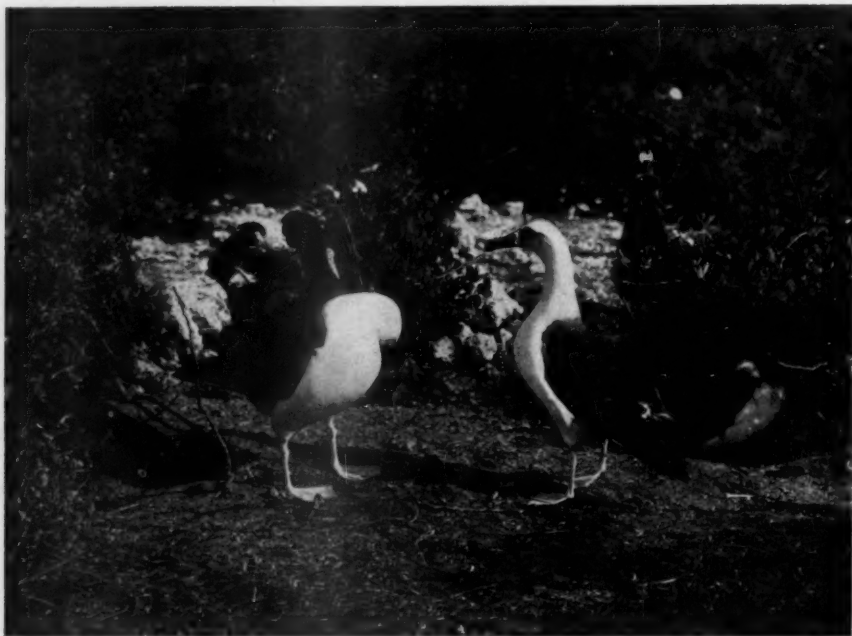


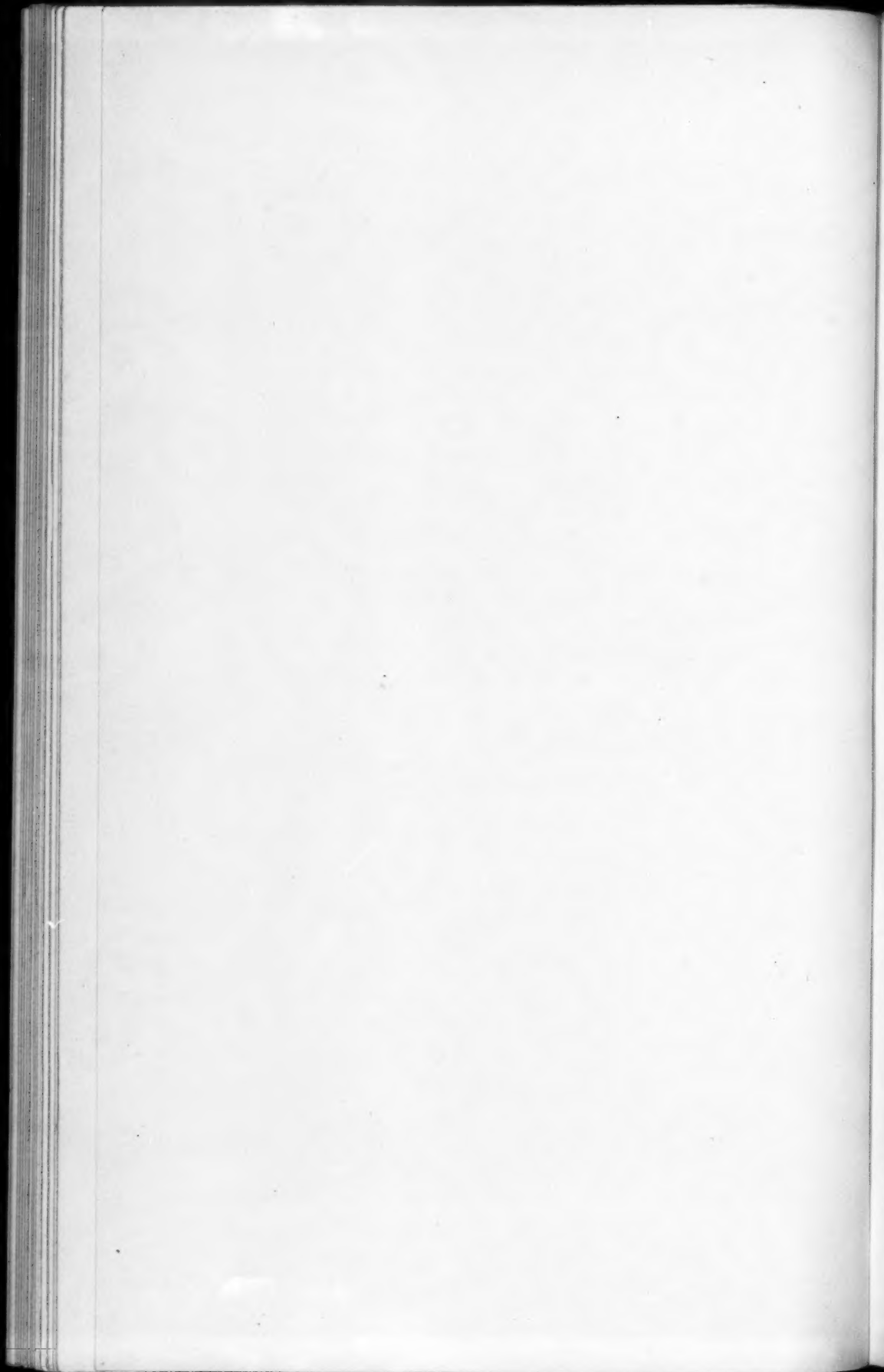
FIG. 2. SECOND STEP IN DANCE.



FIG. 1. LAST STAGE IN DANCE—ONE SINGING, THE OTHER SNAPPING BEAK.



FIG. 2. PORTRAIT OF YOUNG LAYSAN ALBATROSS.



vicinity of Laysan, that very few Laysan Gones were seen at sea after about 9 A. M. That same day we sighted the island about 5 A. M., and when I arrived on deck about 5.30 I distinctly remember seeing many of the white species (*immutabilis*) circling about the vessel. Later in the morning *immutabilis* almost entirely disappeared, but some *nigripes* remained with us all day. On the following morning we landed and I had no further opportunity to observe.

As Prof. C. C. Nutting, one of the naturalists of the expedition, has said,¹ "the most conservative estimate of the necessary food supply yields almost incredible results. Cutting Mr. Schlemmer's estimate [of the total number of albatrosses on the island] in two, there would be 1,000,000 birds, and allowing only half a pound a day for each, surely a minimum for these large, rapidly growing, birds they would consume no less than 250 tons daily." From rather extended observations on the feeding habits I would place the quantity fed each young bird every morning at nearer one or one and a half pounds of squid (*Ommastrephes oualaniensis* Less., *O. sloanei* Gray, and *Onychoteuthis banksi* Fér.²). I believe Prof. Nutting's estimate of a million birds is not too great. Thus in one day the Albatrosses alone would consume nearer 600 tons of squid. Think of the amount all the shearwaters must consume, and the tons of fish, large and small, eaten by boobies, frigate birds, noddies, terns, and tropic birds!

As indicated above, breakfast may be ready almost anytime during the early forenoon, for the mother does not invariably feed the baby immediately on returning. However, when all is ready she alights near the impatient and greedy child, who immediately takes the initiative by waddling up and pecking or biting gently at her beak. (Plate VII, Fig. 1.) This petitioning always takes place, and acts perhaps as some sort of stimulus, for in a few moments she stands up, and with head lowered and wings held loosely at the sides (Plate VII, Fig. 2) regurgitates a bolus of squids and oil. Just as she opens her beak, the young one who has been standing ready, inserts its own crosswise, and skilfully catches every morsel, which it bolts with evident relish. (Plate

¹ Popular Science Monthly, Aug., 1903, p. 324.

² Schauinsland: Drei Monate auf einer Koralleninsel, p. 92.

VIII, Fig. 1). After the process is repeated at intervals of a few minutes, some eight or ten times, the meal is over. The last two or three ejections of this oily pabulum cost the Albatross considerable muscular effort, and the last time nothing came but a little oil and stomach juices. As Prof. Nutting aptly expressed it, "she pumped herself quite dry." The attention of the reader is again called to the fact that this series of three pictures, illustrating the process of feeding, is taken from the same pair of birds.

This domestic duty was one of the common morning sights on the island, and we had not been ashore but a few moments before we witnessed it close to the lighthouse. The mother bird seemed to take quite kindly to the circle of interested men, and fed her offspring, as if it were the most natural thing in the world to have an audience. In fact, I may mention in this connection that the Albatrosses nest all around Mr. Schlemmer's door yard, and from a little distance appear like unwieldy goslings before the door-step. The petrels, also, burrow in front of the house, but of course are not evident in the daytime; and if one strolls out in the wonderfully soft tropical moonlight, he can see the little fiddler crabs scuttling here and there, resuming the work of 'autographing' the white coral sand where the numerous finches, honey-eaters, and rails have left off at sundown. Through the night the island is nearly as lively as at sunrise.

After the Albatross has finished feeding, the young bird is not at all backward in asking for more, but keeps on petitioning and working its head back and forth as if suggesting to its mother a further means of obtaining food. The old one now pecks back in an annoyed manner, and if the baby still urges, she rises from her sitting posture and walks off, usually to vent her morning ill humor on some neighboring young. Often I have seen her dash over to an inoffensive and unprotected 'Gonylet,' and give it a most undeserved trouncing, mauling and 'wooling' it in a pitiful manner. The unfortunate thing never knows what to do, so it tries to peck back, but is soon worsted, and cries in a plaintive squeak for relief. After a while the ill-natured creature returns to its own exacting offspring, sometimes to feed it again, or only to start off for another strange baby. Although the Albatrosses are gentle in their demeanor, this punishment is not carried on in a playful

spirit, but is a thoroughly ruffian-like proceeding. We were all agreed that *nigripes* indulged in it rather more than *immutabilis*, and was likewise more savage. Dr. Gilbert observed a Black-footed Albatross take in a circle of about twenty young *immutabilis* and wool them soundly. Finally, however, the bully arrived at a youngster whose parent, being unexpectedly near by, set upon the persecutor with disastrous effect, and in the ensuing scrimmage put *nigripes* completely to rout. Not a few of the young die as a result of this treatment. I am just now at a loss to suggest an explanation for the prevalence of such heartless behavior.

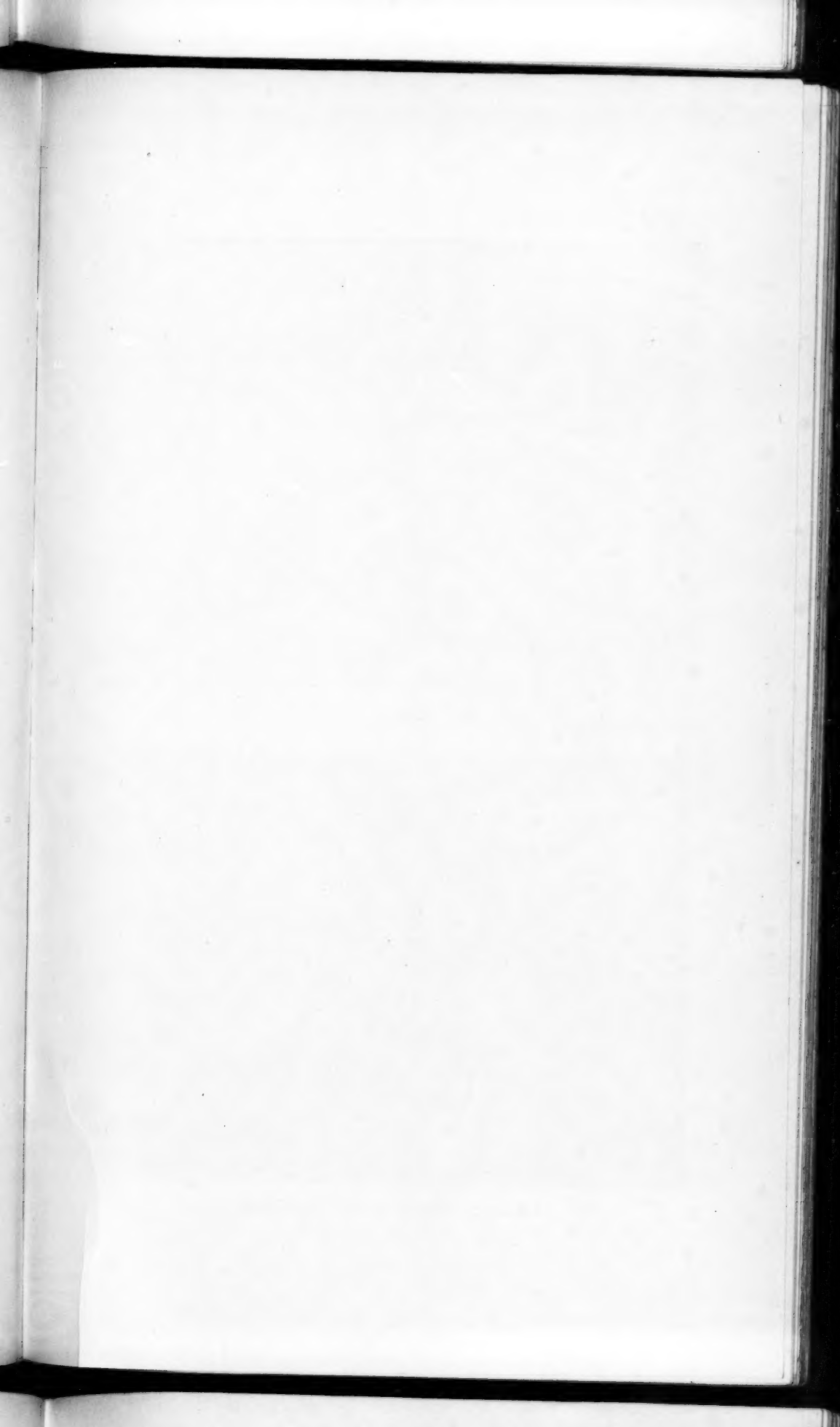
Near the forms or nests one not infrequently finds solid pellets, disgorged by the Albatrosses, consisting entirely of squid beaks, and the opaque lenses of the eyes. These lenses become very brittle and amber-like under the action of the stomach juices, and show a concentric structure. Candle-nuts, the large seed of *Aleurites moluccana*, were found by Prof. Snyder in the interior of the island and were almost undoubtedly ejected by Albatrosses. As is well known, Albatrosses pick up all sorts of floating material, and candle-nuts are frequently seen on the ocean, having been swept to sea by mountain streams. The nearest trees are on Kauai, about 700 miles east. This suggests a means by which many hard floating seeds might be carried into the interior of islands by albatrosses, shearwaters, petrels, and frigate birds, and thus obtain a foothold, whereas if swept ashore on barren rocks or beaches they would stand little chance of ever germinating.

In large colonies of animals, it has always been something of a problem how a parent is able to find its young among so many of its kind. The voice is probably responsible in some cases, but as birds are extremely keen of sight and evince a positive genius for discriminating landmarks, I believe the Albatrosses must in some way depend upon peculiarities in the surroundings of their young. It is worthy of record, however, that the young often 'sing' in a thin, high squeak, which is kept up continuously for periods, and may be of service in guiding the parent, though I could not distinguish the slightest individuality in tone. I do not know whether they do this when the old birds are present, but remember that very many were engaged in the cricket-like song when we visited a populous colony late one moonlight night.

I frequently saw the young sleeping, their eyes being tightly closed and bill tucked under the wing, the usual bird fashion. At night I was much surprised to walk up to the sleeping youngsters, and see how they slumbered on oblivious to the various distractions of their surroundings — the startled cries of terns, the *Ah-h-h's* of Albatrosses, and caterwauling of shearwaters. The feeling of absolute safety has evidently dulled that characteristic alertness, which we are apt to associate with sleeping wild creatures. I have even succeeded in sitting down beside them, without disturbing their slumber, but when I at last patted their heads they very suddenly came to, and the awakening was highly diverting. They appeared confused for a moment, and would then back off most rapidly, snapping the beak with remarkable speed. The old birds seem to be wide awake at night, but about ten o'clock in the morning they frequently sleep near their young, with the bill and one eye covered by the wing.

Albatrosses are inquisitive creatures, especially on the ocean. Anything unusual will immediately attract them, and on land I have had them come trotting up evidently actuated by some other motive than the search for food. One day the dory, rather overloaded, was making for the beach through a choppy sea. Suddenly a wave curled aboard, and then the boat capsized, leaving the occupants struggling in the water. A Gony at some distance perceived the disturbance, and came flapping in great haste over the waves, hoping perhaps for a tender morsel. It settled near the plumpest member of the party, and swam about on a little tour of inspection. The look of anticipation on the creature's face was so unmistakable, that the carpenter at length became uneasy, and exclaimed, "Can't you wait till I croak."

The Albatrosses live on Laysan nearly ten months of the year. During the last days of October, before the winter storms set in, the first vanguard of the mighty army appears, and for days they continue to flock in from all points of the compass. Dr. H. Schauinsland, who witnessed their advent, says that in exposed places the island becomes literally white with the countless throng, as if great snow-flakes had suddenly descended upon the scene. So vast is the number of birds that many are obliged to be content with rather unsuitable nesting spots, while late-comers must



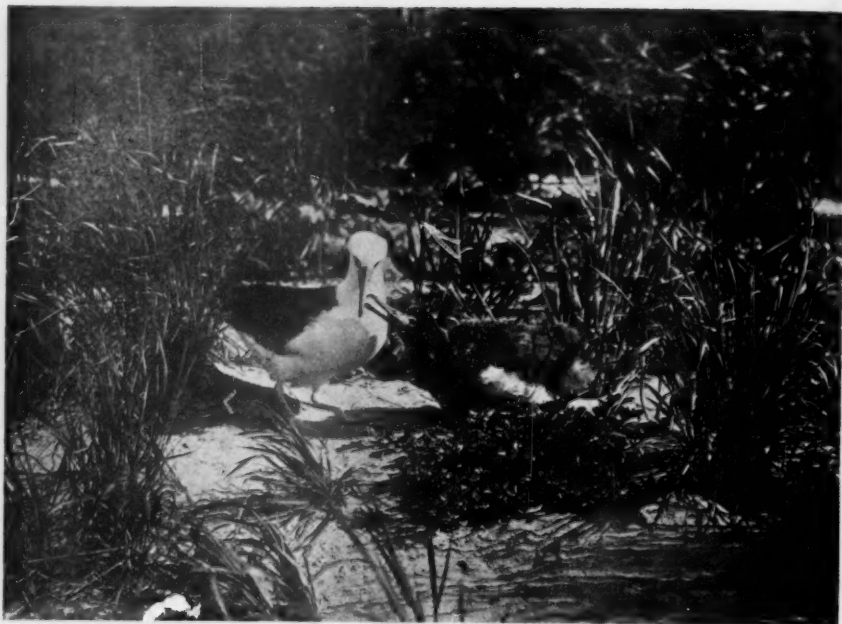


FIG. 1. YOUNG ALBATROSS ASKING FOR FOOD.



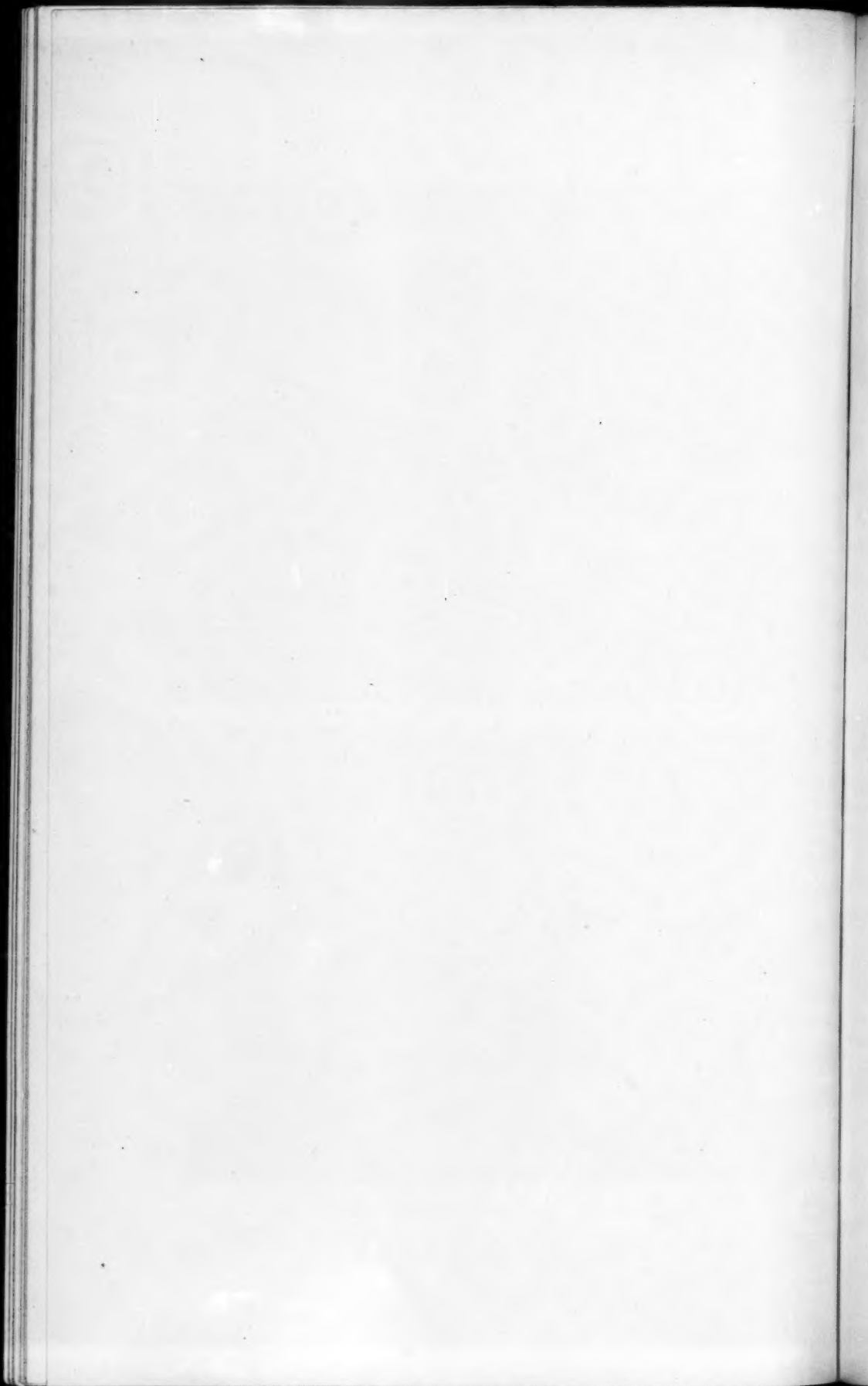
FIG. 2. OLD BIRD STARTING TO DISGORGE.



FIG. 1. THE ARRIVAL OF BREAKFAST.



FIG. 2. *DIOMEDEA NIGRIPES* PUNISHING STRANGE YOUNG.



leave the overcrowded area. Loving couples defend their rights against the tardy ones, and it is several days before all have settled their respective claims.

The white Albatross lays one egg, on the ground, usually in a slightly raised mound with a shallow basin in the top. We saw numbers of these 'forms' almost worn out by the young birds. According to Mr. Max Schlemmer, the representative of the guano company, the egg is laid about the middle of November. We were of course out of season to secure any, although we saw numerous spoiled ones half buried in the sand. The ground color is usually dirty white, with irregular patches and spots of brownish maroon at the larger end. Eggs of this type usually average 111.5 mm. in length by 62.5 mm. in width. There is another type, very short and thick (100 mm. by 70), uniform brownish buff without any markings whatever¹. The young are not hatched until February (Schlemmer) and then begin the six months of hard work to feed the hungry babies. They grow slowly, for birds, and it is not till the last of July that the most venturesome follow their parents on short flights to sea. A few weeks later all are on the wing, and with the old birds they scatter far and wide over the Pacific. Then for two months at least they take a vacation, as it were, before undertaking the cares of the next nesting season. They have been found in their wanderings as far away as Myiakejima, Japan, and Guadelupe Island off Lower California. Besides on Laysan, *Diomedea immutabilis* makes its home on Midway, Lisiansky, French Frigate Shoal, Necker and Bird, and *D. nigripes* is likewise found on these islands, but very sparingly on the last two.

After the Albatrosses leave Laysan the broad rookeries are bare, and with the advent of the fall rains a fine grass springs up all over the deserted cities, forming delicate verdure where recently the ground was packed hard by busy feet. The ancestral home is now bereft of its greatest attraction, and surely the face of the island must seem entirely changed.

Mr. Dutcher in a recent article on the Herring Gull well says that not even the most facile pen can describe the life and beauty

¹ I am indebted to Rothschild's 'Avifauna of Laysan,' p. 291, for this description of the eggs.

of a great bird colony. Thus in attempting to indicate something of the life of the Albatross I have wholly failed to include the subtle charm which reaches one through the soft tropical sky, the salty breeze, the sparkling lights on waves, now green now purplish, as they break on the coral reef; and the wilder scenes in the tossing surges that assail the eastern shore with booming roars and clouds of flying spray; and the darting, screaming multitude of sea fowl gleaning their living prey from the tumult of waters, or winging their certain way to the expectant nestlings. Every sight and sound leaves a lasting impression, and yet, perhaps, it will be the *mystery* of those myriads of sentient beings that will linger when all else has been forgotten.

NESTING HABITS OF THE HERODIONES IN FLORIDA.

BY A. C. BENT.

Plates IX and X.

DURING the past two seasons, April and May, 1902 and 1903, I have had excellent opportunities to study the nesting habits of all the species of this order known to nest within the limits of the State of Florida, with the exception of the Glossy Ibises and the Reddish Egret, the former being very rare in the regions visited, and the latter being practically confined to the Florida Keys where it is by no means common. The season of 1902 was spent in Brevard County, at various points along the Indian River from Titusville to Sebastian, and in the interior, among the marshes and cypress swamps of the upper St. Johns River, this latter locality proving most fruitful. The river at this point is spread out over a marshy area about three miles wide with a narrow open channel and a series of small lakes or ponds in the center. Except in these open places the water is very shallow, from one

to three feet deep, with a treacherous muddy bottom, making wading impossible. The marsh consists of broad areas of saw grass among which are numerous tortuous channels overgrown with a rank growth of coarse yellow pond lilies, locally known as 'bonnets,' through which we had to navigate by laboriously poling a shallow, pointed skiff. The channels are still further choked by small floating islands, made up of bushes and rank aquatic vegetation, which drift about more or less with the changes of the wind. There are also many permanent islands overgrown with willows which serve as rookeries for thousands of Louisiana Herons, Little Blue Herons, Anhingas, and a few Snowy, Black-crowned and Yellow-crowned Night Herons. Least Bitterns, Red-winged Blackbirds and Boat-tailed Grackles nest in the saw grass, Coots, Purple and Florida Gallinules, frequent the 'bonnets,' and large flocks of White Ibises, Wood Ibises, Cormorants and a few Glossy Ibises fly back and forth over the marshes, especially at morning and evening.

The season of 1903 was spent in the extreme southern part of the State, cruising in a small schooner from Miami to Cape Sable, visiting nearly all of the keys and making several trips inland to the southern edge of the everglades in Monroe County.

The whole of the Bay of Florida, from the outer keys to the mainland, is extremely shallow, so that cruising in a boat drawing more than three feet of water is out of the question; I should say that fully one half of the bay would average less than three feet deep; the bottom is covered with soft, slimy, whitish mud which discolors the water and at certain times makes it quite opaque. There are three types of keys in this region, mud keys, sand keys, and coral keys. The mud keys are by far the commonest type, the natural result of the prevailing conditions, and they are constantly increasing in size and number. They owe their origin and their increase to the agency of the red mangroves and their long-tailed seeds, which float about until they find a foothold in the mud where they germinate and grow to maturity, spreading out from year to year over more and more territory until an incipient key is formed. This incipient key is locally known as a 'bush,' having no dry land under it, the trees growing in water from one to three feet deep. As the key grows older and dry

land forms, the red mangroves in the centre are gradually replaced by black mangroves.

On some of the largest, and probably the oldest, keys there are dry, open areas overgrown with grasses and underbrush, the red mangroves remaining only in a narrow strip around the shores.

There are very few sand keys, which are merely modified mud keys, having beaches of coarse shelly sand replacing the mangroves for portions of their shore line. Most of the outer and lower keys are of coral formation; they are the most picturesque, the most interesting and the most tropical in appearance of all the keys. They are but scantily covered with a thin, light soil, the coral rock showing through it everywhere, but they generally support a rich tropical vegetation, consisting of cocoanut palms, tamarinds, sapadillos, oranges, lemons, limes, bananas, pine-apples, pawpaws, sisal and various cacti. On the larger keys the edible fruits are largely cultivated by the native 'conchs' and negroes.

The mainland, for many miles into the interior, is low and flat; the lakes and streams are shallow and brackish; and the absence of any good drinking water, together with the omnipresent swarms of mosquitoes, make collecting in the interior anything but a pleasure. Red mangroves line the shores of all the lakes and streams, and the forests consist mainly of black and white 'buttonwoods,' black mangroves and a few rubber trees. There is a narrow strip of prairie along the southern coast of Monroe County, between the muddy shore and the forest, and at Cape Sable there is a long stretch of high, sandy beaches, these two being the only habitable localities on the mainland.

I shall now take up the various species of the Order Herodiones, giving my experience with them, as I found them in Florida, without attempting to describe their habits or distribution elsewhere.

Ajaia ajaja. ROSEATE SPOONBILL.

This beautiful species, which must be seen in life to be appreciated, is confined, during the breeding season at least, to the extreme southern portions of Florida. The Spoonbills are

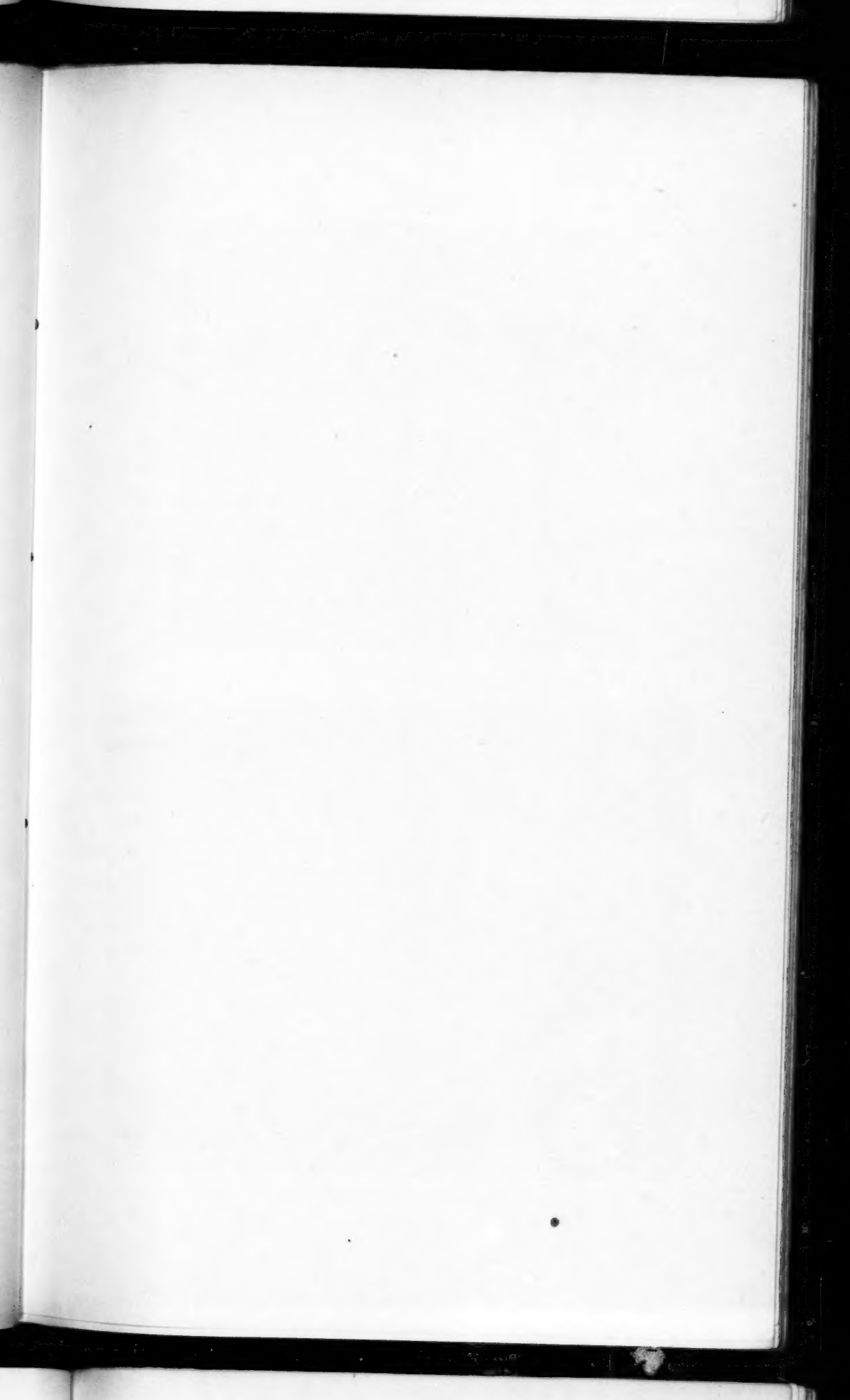




FIG. 1. NEST AND YOUNG OF ROSEATE SPOONBILL.



FIG. 2. NEST AND EGGS OF ROSEATE SPOONBILL.

fairly abundant on the southern coasts of Florida during the winter, feeding in large flocks in the shallows of the Bay of Florida, in the muddy inlets along the shore, and in the shallow lakes and sloughs in the interior. One of their favorite feeding grounds is a large, so-called 'slough' near Cape Sable, but very different in character from the typical western prairie slough. This is apparently a submerged forest, killed by inundations from the sea, the remains of which are still standing, tall dead trees, many of them of large size, bare and bleached. During the fall and early winter the slough is full of water but at the time we were there, in April, it was partially dry in spots, but mostly soft and boggy, with sluggish streams and numerous shallow muddy pools scattered through it, forming fine feeding grounds for Spoonbills, Ibises and other water birds. There is another favorite resort of the Spoonbills on one of the keys which has a fair sized lake in the centre. Large flocks of 'Pink Curlews', as they are called by the natives, had been seen almost daily flying to and from this lake. Owing to this fact we were lead to suppose that we might find a breeding rookery here, but a day's search failed to reveal even a single bird. I am inclined to infer that they come here only to feed in the shallow muddy waters of the lake or to roost in the mangroves around it.

We found the Roseate Spoonbills breeding in only two localities, in large mixed rookeries with several other species. The first locality was a small island, not over two acres in extent, in the centre of a large lake in the interior, Cuthbert Lake, about seven miles back from the coast and almost on the edge of the everglades. It was covered with a thick growth of black mangroves, mixed with white 'buttonwoods' and a few black 'buttonwoods,' in the centre and surrounded by a wide belt of red mangroves growing in the mud and water up to three feet in depth.

As we approached the island an immense cloud of birds arose, with a mighty roar of wings, and circled about us in a bewildering mass. We estimated that there were at least 4000 birds nesting on the island, principally White Ibises and Louisiana Herons, with a great many Little Blue Herons, Anhingas and Florida Cormorants, and a few American Egrets. But conspicuous among them all was a little party of twelve Roseate Spoonbills;

they perched for a few moments in the mangroves, their gorgeous nuptial plumage showing to advantage against the dark green foliage, then rose, gradually circling higher and higher, the sun illuminating their delicately rose-colored wings, as with outstretched necks and legs they seemed to fade away into the sky. We did not see them again that day.

Though we searched carefully and thoroughly, we found only three of their nests. These were all built in red mangrove trees on the edge of the water among the nests of the White Ibises; they were all on nearly horizontal branches, from 12 to 15 feet from the ground, and were all similar in size and construction, easily distinguishable from the others. They were larger than the Ibises' nests or the smaller Herons' nests and about as large as the Anhingas' nests, but more neatly made than the latter, without the use of dead leaves, which are so characteristic of the Snakebirds' nests; they were well made of large sticks, deeply hollowed and lined with strips of bark and water moss. One nest contained only a single, heavily incubated egg, one a handsome set of three eggs, and the other held two downy young, not quite half grown.

The single egg has a dirty white ground color with only a few irregular blotches of raw umber and mummy brown about the larger end; it measures 2.58 by 1.72 inches, being somewhat elongated ovate in shape. The set of three eggs have a pinkish, creamy white ground color, more or less uniformly covered with dashes and spots of lavender, purple and drab, over which spots of various shades of brown are quite evenly distributed.

The eggs somewhat resemble those of the White Ibis, but can always be easily distinguished by their larger size; they will average one quarter of an inch larger each way.

The two young, in the feeble, helpless stage, unable to stand as yet, were curious looking birds, flabby and fat, with enormous abdomens and soft duck-like bills; their color, including bill, feet, legs and entire skin, was a beautiful, deep, rich salmon pink; they were scantily covered with short white down which was insufficient to conceal the color of the skin; the wing quills were well started, but still in sheaths. The first plumage, acquired before the young leave the nest, is mainly white with a slight suffusion of pink under the wings and tail.

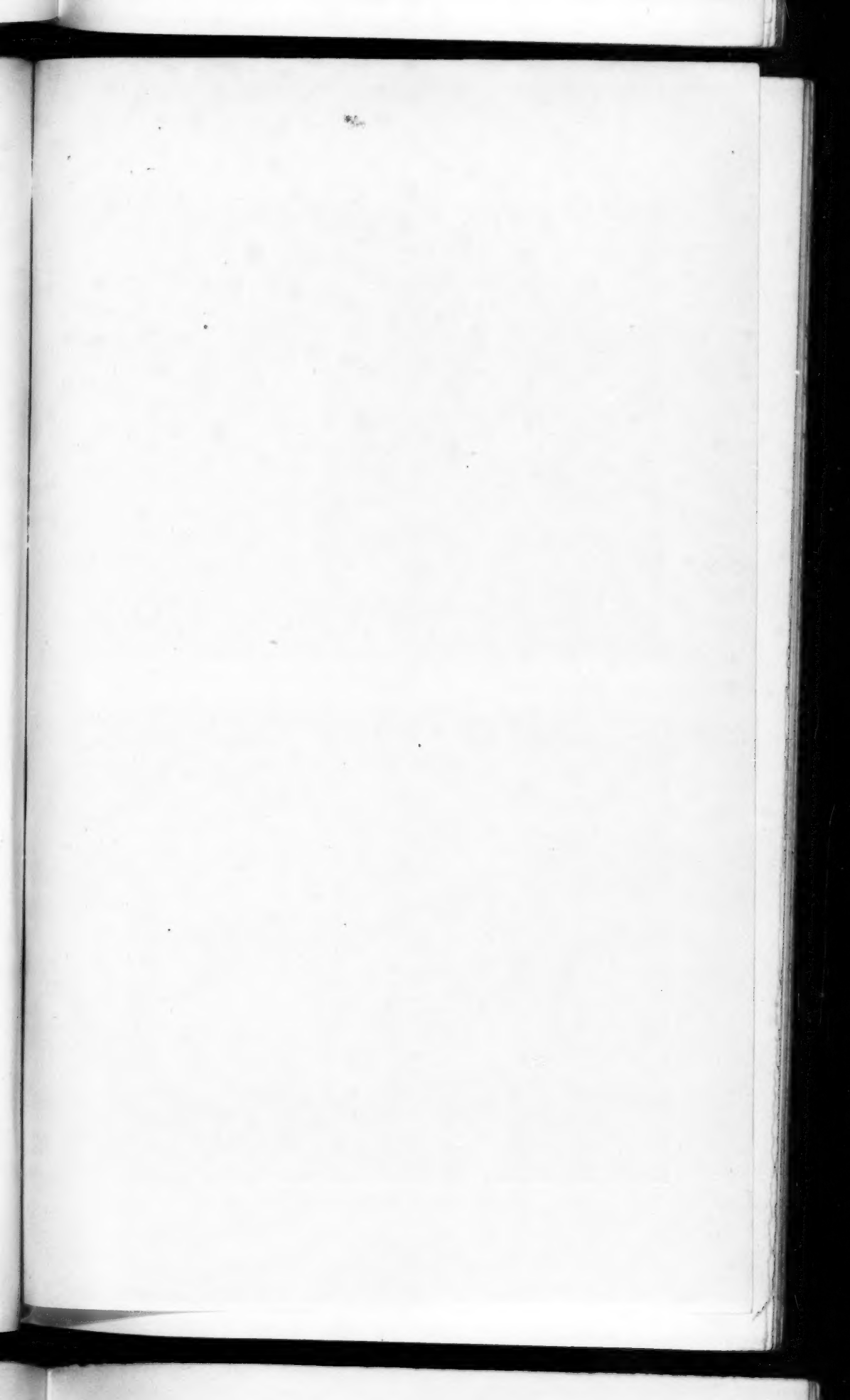




FIG. 1. NEST OF WHITE IBIS.



FIG. 2. NEST AND EGGS OF WHITE IBIS.

The principal breeding ground of the Roseate Spoonbills was a great morass on the borders of Alligator Lake, a few miles back from the coast near Cape Sable, where the mangrove islands in which the birds were nesting were well protected by impenetrable jungles of saw grass, treacherous mud holes, and apparently bottomless creeks. The various members of the heron family were nesting here in countless numbers, White Ibises, Roseate Spoonbills, Louisiana Herons, Snowy Herons, and American Egrets; one might toil here for many hours and never get beyond the sea of nests and hosts of young birds in all stages of growth; the area was too vast and the traveling too difficult to arrive at any reasonably accurate estimate of the numbers of birds breeding in this great rookery. The Spoonbills were here in abundance and had eggs and young in their nests in all stages, as well as fully grown young climbing about in the trees. The old birds were tamer here than at Cuthbert Lake, and even allowed themselves to be photographed at a reasonable distance.

The Spoonbills will probably be the next to disappear from the list of Florida water birds; they are already much reduced in numbers and restricted in habitat; they are naturally shy and their rookeries are easily broken up. Their plumage makes them attractive marks for the tourist's gun, and they are killed by the natives for food. But fortunately their breeding places are remote and almost inaccessible; and through the earnest efforts of the A. O. U. wardens they are now protected. It is to be hoped that adequate protection in the future will result in the preservation of this unique and interesting species.

Guara alba. WHITE IBIS.

The White Ibis, or 'White Curlew' as it is called by the natives, is universally abundant throughout all portions of Florida that I have visited, but especially so in the southern portions of the State. Both this and the preceding species are highly esteemed by the natives as food; the old birds are shot at all seasons and the young are taken from the nests in large numbers.

The 'conchs' and negroes of southern Florida also eat the young of all the smaller herons and do not draw the line even at young cormorants.

On the upper St. Johns we saw large flocks of White Ibises daily, flying to and from their feeding grounds at morning and at evening; we also found them feeding in large numbers in the shallow pools in the cypress swamps, but we were not able to locate any breeding rookeries in this region.

In Monroe County they were the most abundant species of the order, breeding in immense colonies of countless thousands. We found them on all the inland lakes and streams, feeding in the shallow, muddy lakes and flying out ahead of us as we navigated the narrow creeks.

The first breeding colony we found was in the Cuthbert Lake rookery referred to above; as we approached the little island the Ibises arose in a great white cloud from the red mangroves and circled about over our heads, uttering their peculiar grunting notes of protest. We estimated that there were about 1000 Ibises in the colony. They soon settled down into the trees again where we landed and were constantly peering at us through the foliage while we were examining their nests.

The Ibises' nests occupied the intermediate belt, on the outer edge of the larger trees on the dry land and on the inner edge of the red mangroves over the mud and shallow water, the interior of the island being occupied by the herons and the outer edge of the mangroves by the cormorants.

The nests were rather closely grouped, at heights varying from 8 to 15 feet, on the horizontal branches of the mangroves, often on very slender branches; only a few were placed in the white 'buttonwoods.' They were very carelessly and loosely made of dry and green leaves of the mangroves, held together with a few small sticks and lined with fresh green leaves. The nests are probably added to as the eggs are laid or as incubation advances.

The nests which contained only one egg were very small, flimsy structures, hardly large enough to hold the egg, often measuring only 6 inches across, while those with three eggs were larger, 10 inches or more across, and better made. They generally lay four or five eggs, and in such cases have large and well built nests. At the time of our visit, May 1, 1903, the Ibises in this rookery were only just beginning to lay, as most of the nests contained one or two eggs, none more than three, and all the eggs we collected were fresh.

This was rather remarkable, considering that fifteen days later, at Alligator Lake, where these Ibises were breeding in immense numbers, they had young of all ages, many of them able to fly.

There are several very large breeding rookeries of White Ibises on the lower west coast of Florida which we did not have time to visit, but we were told by our guides that they are much larger than any we had seen.

The eggs of the White Ibis are subject to great variation in size, shape, and color, making a handsome series. The ground color varies from pale blue to dull white or deep cream color. Some of the eggs are nearly immaculate, with a few small spots or blotches of various shades of brown. Some are boldly spotted or heavily blotched with chestnut or chocolate brown, and some profusely washed or stained with russet or burnt sienna. In shape they vary from ovate to elongate ovate.

A series of six sets selected at random exhibit the following measurements: length, 2.47 to 2.17; breadth, 1.61 to 1.47; average, 2.33 by 1.53 inches.

The White Ibises are so extremely abundant that there seems to be but little danger of their extermination, at least for a long time to come, in spite of the fact that they are shot in large numbers by sportsmen and tourists, as well as by the residents for food. Their rookeries are generally difficult of access, and they are not sought after by the plume hunters.

Tantalus loculator. WOOD IBIS.

This interesting species is fairly common in nearly all the fresh water lakes and marshes in the interior of Florida, and, owing to its large size and striking colors, is always conspicuous. During the winter months it is abundant all along the Indian River, where it may be seen in large flocks along the muddy shores feeding on small crustacea and batrachians; its actions at such times are grotesque and amusing as it dances along over the mud, beating the ground with its feet to drive the little crabs from their holes. As the breeding season approaches the Wood Ibises disappear from their winter feeding grounds and resort to the cypress swamps in the interior to breed. There are several small breeding rookeries

a few miles back from the coast along the Indian River in Brevard County, where they nest in small cypress swamps.

In the big cypress swamps in the upper St. Johns region there are more extensive rookeries. We saw the birds here frequently flying to and from their rookeries, especially at morning and at night, in long lines high in the air, alternately flapping their wings or sailing, all in perfect unison, and all following their leader with military precision. Their pure white plumage, contrasted with their jet black remiges served to identify them at a long distance.

Sometimes we saw them sailing about in great circles high above us, their necks and legs outstretched and their long wings motionless, giving a fine example of their wonderful wing power.

They were extremely wary, and, except in their breeding rookeries, they never came near us or allowed us to approach within gunshot. Their nests were placed in the tops of the tallest cypresses, and far out on the horizontal limbs, in the very heart of the big cypress swamp. The trees here were the largest I have ever seen, measuring six feet or more in diameter at the base, tapering rapidly to about three feet in diameter, and then running straight up at about that size for seventy-five or one hundred feet to the first limb. The nests were practically inaccessible by any means at our disposal, so we remained in ignorance as to their contents.

In Monroe County we were more fortunate, as the absence of cypress swamps in this region compelled the Wood Ibises to nest in smaller trees. We found a small colony of Wood Ibises breeding on an island in Bear Lake, about two miles back from the coast. The birds were very shy, leaving the island when we were about one hundred yards away, and not coming within gunshot afterwards. There were about twenty nests in the tops of the red mangroves, from twelve to fifteen feet from the ground; they were large nests, about three feet in diameter, made of large sticks, very much like the nests of the larger herons, and were completely covered with excrement. All the nests held young birds in various stages of growth, covered with white down; only the foreheads were naked. The bills were pale yellow, the eyes dark and the feet pale flesh color. They were grotesque looking objects, squawking loudly to be left alone. A party of Fish

Crows made their lives miserable as long as their parents were away.

The Wood Ibises are not in need of protection; they are extremely shy and wary and well able to take care of themselves; they are not sought after by the plume hunters and are useless for food.

***Plegadis autumnalis*. GLOSSY IBIS.**

I have very little to add to the life history of this species in Florida where it is undoubtedly rare and of local distribution. We saw a few Glossy Ibises flying over the marshes of the upper St. Johns, but found no evidence of their breeding there.

The White-faced Glossy Ibis has been once recorded from this vicinity near Lake Washington, where a female was shot on a nest containing three eggs (see Brewster, *Auk*, III, 1886, p. 481). We were unable to shoot any of the birds we saw and therefore could not determine the species with certainty. In Monroe County we saw only one flock of five birds flying over, high in the air, at Lowes Lake near Cape Sable. Our guides told us that they were rarely seen, and none of the guides with whom I corresponded seemed to know them at all.

SUMMER BIRDS OF THE LEECH LAKE REGION,
MINNESOTA.

BY EDMONDE S. CURRIER.

IN 1902 I was in this region from May 26 to June 10, and again, in 1903, from May 22 to June 8. Almost the entire time was devoted to the birds, particular attention being given to the breeding species.

I made my headquarters in the little city of Walker during both visits. In 1902 I was by myself the greater part of the time, but

was accompanied frequently by my friend Mr. Thompson who, although not particularly interested in birds, helped me in many ways and was good company. In 1903 Mr. Phila W. Smith, Jr., of St. Louis was with me, and we lost little time. Mr. Smith is an experienced field man, and being also energetic and tireless we covered the immediate country around Walker thoroughly. Our time was too limited to allow us to explore the entire lake as we desired to do, so we confined ourselves to the western end.

The town of Walker is on Walker Bay, the latter forming the western extension of Leech Lake proper. Walker Bay, itself, is no inconsiderable body of water, as it is from ten to fifteen miles in length, by one to three in width. Leech Lake is one of the largest lakes in Minnesota and has over five hundred miles of shore line. It is in the north-central part of the State, just north of the 47th parallel, and between 94° and 95° west longitude — not far from the source of the Mississippi.

The lake is a beautiful body of water, clear, cold, and pure, with sandy shores and bottom, the former rippapped with great granite boulders. Many beautiful forest-clad headlands project out into the lake, forming protected bays of varying size. Several small rivers, such as the Shinobie, Kabakona, Steamboat, and Benedict, enter Walker Bay, carrying the surplus water from numerous small lakes and ponds back in the hills. At the mouths of these streams, and in places along their course, are marshes of greater or less extent, with beds of wild rice and cane.

The Leech Lake Indian Reservation, occupied by the Pilger tribe of the Chippewas, takes up the greater part of the lake and surrounding country, and on their lands the forest is in its natural beauty. Where the land is not thus protected the destructive lumberman has left nothing but unsightly pine stumps and mutilated standing trees; and as this section was only cut over from three to five years ago, nature has not had time to cover the scars. In many places great fires have swept through in the wake of the lumbermen leaving nothing but desolation. Some of the places are so recently burned over that nothing green has started from the crisp, ash covered ground, and such localities are shunned by birds and insects.

Back from the lake is a succession of hills, with small lakes or

'pot-holes' between. On many of the larger hills are depressions, some water-filled, forming lakes of several acres. Another peculiarity of the country is the great number of boulders of different sizes scattered haphazard over the landscape. The lake beds and shores are strewn with them, they protrude from the marshes and swamps, and are plentiful on the hilltops. In places they are piled up as if they had drifted there.

In its primitive state the forest is heavy, the principal trees being white, Norway and jack pines, balsam, cedar, tamarack, hemlock, poplar, birch, sugar and soft maple, oak, linn, elm and black ash. The hills become covered with birch and poplar after the pines are cut away.

The low growth consists of black alder, hazel, wild raspberry, currant and gooseberry. A wild rose is also numerous. The ground in the clearings and old burns is carpeted with winter-green, wild strawberry, and the abundant blueberry. The great 'brakes,' and more delicate species of ferns are in profusion everywhere.

The country is wild and new, and fences are few and far between, as little land is under cultivation. The soil is very sandy with much gravel, and looks unpromising.

1. *Colymbus holboëllii*. HOLBELL'S GREBE.—A colony of from six to ten pairs was found breeding in a bay formed by Minnesota Point in both 1902 and 1903. In 1902 I saw the following nests, with contents as stated: June 2, two nests, each containing one egg, and one nest containing six eggs; June 10, three nests, containing four, five, and seven eggs respectively. In 1903 we saw the following: May 31, two nests, each with one egg, one with three, and another with four eggs; May 24, two nests, each with one egg, and two containing three eggs each.

One nest was high and dry on a muskrat house—a hollow in the side of the house, and about ten inches above the water. The muskrat house was in a patch of tall canes, growing in deep, open water, forming a small island. The other nests were similar in situation, style of architecture, and material used. They varied only in size, and this depended upon the time the birds had been laying. Nests containing only one egg were simply irregular piles or rafts of floating flags, soft and rotting, with the egg often awash and covered with foam. In more advanced sets the nests formed quite a mass of material, with a deep cup above water line. No birds were seen on the nests, or leaving them, but in 1902 I saw one swimming away from a patch of canes in open water that contained a nest.

When there was but one egg in the nest this was left uncovered, but in larger sets the eggs were at least partially covered, and in some cases entirely so. The nests were all placed at the edge of deep and open water so that the bird could dive directly from them.

In 1903 the birds were very quiet both times we were there, and kept out of sight, or at a great distance. I think this was because they had been disturbed, as nests containing eggs May 24 were either deserted or contained fewer eggs when we visited them again on the 31st. The Indians have a village on Squaw Point, a few miles across the bay, and they were seen paddling around these rice beds, and it may be that they take the eggs. In 1902 I did not notice that any nests had been disturbed.

In 1902 they were very noisy both days I was in the vicinity, and although wary and keeping at a distance, were constantly in sight in the open waters between the rice beds and cane islands. They are much given to short flights, resembling a loon while on the wing. In taking wing they patter along the water like a coot. The cry is loon-like also, and very striking. It begins with a shrill wail, drawn out, and ending with more rapid notes, and can be heard a great distance over the water. When at a distance they sit high upon the water like a duck, but with the neck held stiffly at a right angle to the body, and the bill at a right angle to the neck. When nearer they swim with the back awash or only the head above the surface.

We did not see any other grebe around Leech Lake, and it was only in this one place that this species was found.

2. *Gavia imber*. LOON.—Common, and seen every day on or about Leech Lake, or flying overhead to or from the smaller lakes back in the forest. Cry frequently heard. No nests seen either year.

3. *Larus argentatus*. HERRING GULL.—Seen on Walker Bay on the following dates in 1903: May 21, 24, 29, and 31. Not over two seen at one time.

4. *Larus franklinii*. FRANKLIN'S GULL.—May 27, 1902, several were flying over Walker Bay, and on the same date in 1903 we saw one at the eastern end of the same water.

5. *Sterna forsteri*. FORSTER'S TERN.—A white tern seen on Walker Bay, May 30, 1903, was probably this species. It was not obtained.

6. *Hydrochelidon nigra surinamensis*. BLACK TERN.—A colony of perhaps 200 pairs was seen on the marsh extending along Minnesota Point from Kabakona Bay out into the lake. They seemed to be in about the same numbers in 1903 as in 1902. In the former year I found no nests although I saw them carrying material, but this year we found them breeding on the 6th of June. The nests almost invariably held three eggs, most of them fresh, but some had been incubated for several days. The nests were on little islands of moss, or occasionally on rafts of floating grass. Some of them were quite deeply cupped and dry, others were made of reeds and flags, on the beds of grass, and looked rather neat; but in some instances the eggs were half buried by their own weight in the

wet slime, with only three or four short pieces of cane or reeds for a nest. Not more than one nest was on the same bed, nor did we find two nests near together.

The majority of the birds were in full plumage, but a few were much mottled with light. The clamor made by their jerky cries, the harsh, scolding of the Yellow-heads, and more vigorous protests of the Red-wings, the cries of the Sora, and the 'jumping' of the Bitterns, together with frequent shouts from Holbcæll's Grebe, made this marsh very interesting.

7. *Pelecanus erythrorhynchos*. AMERICAN WHITE PELICAN.—June 6, 1902, I saw a flock of eight over Squaw Point flying towards the main lake. None were seen by us in 1903.

8. *Anas boschas*. MALLARD.—Seen in several places about Walker Bay in both 1902 and 1903. June 6, 1903, I found a nest on Kabakona marsh recently left by a brood. It was a hollow filled with down and egg shells, between two ash stumps in rank grass, in a dry place on the marsh and only a few yards from the railroad.

9. *Querquedula discors*. BLUE-WINGED TEAL.—A pair heard and seen at Minnesota Point June 6, 1902. None seen in 1903.

10. *Aix sponsa*. WOOD DUCK.—June 6, 1902, at Minnesota Point, a pair flew around me in evident excitement. I suppose they had young near by.

11. *Branta canadensis*. CANADA GOOSE.—May 31, 1902, an old bird with young was seen near the mouth of Steamboat River.

12. *Botaurus lentiginosus*. AMERICAN BITTERN.—Common at every point visited. No nests were seen in 1903, but June 6, 1902, I saw a nest containing five eggs.

13. *Ardea herodias*. GREAT BLUE HERON.—Common about the lake. No nests seen.

14. *Porzana carolina*. SORA RAIL.—Abundant on all suitable marshes. Many nests seen in 1903, one containing eighteen eggs, another seventeen. The average number of a set seems to be about ten.

15. *Steganopus tricolor*. WILSON'S PHALAROPE.—Common on the rice beds at Minnesota Point in both 1902 and 1903. No nests seen.

16. *Macrorhamphus scolopaceus*. LONG-BILLED DOWITCHER.—One was taken May 24, 1903, at Minnesota Point. It was standing on the edge of a rice bed, near deep water, and allowed us to row within a few yards, merely crouching down and showing little fear. As we were not sure as to the bird's identity Mr. Smith shot it from the boat. It was a beautiful bird in high plumage.

17. *Actodromas minutilla*. LEAST SANDPIPER.—June 6, 1902, a flock of ten or fifteen was feeding on the beach along Minnesota Point. At the same place, May 24, 1903, another flock of about the same size flew by us.

18. *Ereunetes pusillus*. SEMIPALMATED SANDPIPER.—May 27, 1902, one was seen along the beach near Walker. May 23, 1903, another was flushed from a bog near the railroad above Walker.

19. *Calidris arenaria*. SANDERLING.—June 10, 1902, one was seen on the beach near the end of Minnesota Point. The wind was high at the time, and I was rowing as close to the shore as possible to avoid it, and the boat passed within a few feet of this bird. It seemed to be too busy searching for food to notice me. May 24, 1903, another was seen near the same place on the beach.

20. *Bartramia longicauda*. BARTRAMIAN SANDPIPER.—I saw but one; this was on June 9, 1902, on a small marsh near the mouth of Kabakona Bay.

21. *Actitis macularia*. SPOTTED SANDPIPER.—Abundant about the lake shore. Two nests, each containing four eggs, were seen in 1903.

22. *Oxyechus vociferus*. KILDEER.—Common near the lake, particularly in the evening when they seemed to come from the interior to feed.

23. *Ægialitis semipalmata*. SEMIPALMATED PLOVER.—May 24, 1903, one was seen on the beach near the end of Minnesota Point.

24. *Arenaria morinella*. RUDDY TURNSTONE.—May 24, 1903, one was seen on the beach near the end of Minnesota Point. We passed in the boat within a few yards of where it was busily engaged in turning over pebbles and pieces of bark without flushing it. It stopped and looked at us several times but did not seem timid.

25. *Canachites canadensis canace*. CANADIAN SPRUCE GROUSE.—I think I flushed one of these birds from a poplar wood on a hillside near Walker, May 26, 1902, but we could find none in 1903, although we looked particularly. The people there say that the "Spruce Hen" is only with them in the winter, when it is common in the jack pine woods.

26. *Bonasa umbellus togata*.—CANADIAN RUFFED GROUSE.—Common and tame about Walker. Heard drumming, or seen almost every day. No nests seen. The people call them "Partridges," and they are the chief game bird of that region.

27. *Cathartes aura*. TURKEY VULTURE.—Several were seen both years about Walker. June 9, 1902, a pair passed low over me at Kabakona Bay, and May 27, 1903, three were in sight at one time over Shinobie River. They are generally seen singly, and cannot be called common.

28. *Circus hudsonius*. MARSH HAWK.—In 1902 I saw this bird on almost every suitable marsh around the lake, but in 1903, strange to say, we did not see a single one anywhere.

29. *Accipiter velox*. SHARP-SHINNED HAWK.—One seen May 27, 1902. In 1903 we saw several.

30. *Buteo borealis*. RED-TAILED HAWK.—Several seen in both years about the lake.

31. *Buteo lineatus*. RED-SHOULDERED HAWK.—June 8, 1902, one crossed the railroad so near me I could see it plainly. Several seen in 1903.

32. *Falco columbarius*. PIGEON HAWK.—May 27, 1903, a pair was seen sitting, not far apart, on the extreme tops of two spire-like balsams

on the Shinobie River. They acted very much at home and no doubt had a nest not far away.

33. *Falco sparverius*. AMERICAN SPARROW HAWK.—None seen about Leech Lake in 1902, but in 1903 we could generally find one about some old stubs two miles south of Walker, along the lake shore. Others were also seen in 1903.

34. *Syrnium varium*. BARRED OWL.—One was seen crossing an arm of Walker Bay, at twilight, June 7, 1903. Two downy young were also seen in captivity in Walker while we were there this year.

No other owl was seen or heard either year. I was told that Screech Owls were often heard, but we were not fortunate enough to hear any. The people say that the Snowy Owl visits them in the winter, some years in numbers.

35. *Coccyzus erythrophthalmus*. BLACK-BILLED CUCKOO.—Fairly common around Walker. First heard June 3, 1902, and May 25, 1903.

36. *Ceryle alcyon*. BELTED KINGFISHER.—Very abundant around the lake, and seen near every body of water visited. Many nesting cavities seen.

37. *Dryobates villosus leucomelas*. NORTHERN HAIRY WOODPECKER.—The Hairy Woodpecker of the Leech Lake region is very much larger than the one I am familiar with in Iowa and Missouri, and I do not hesitate to list it as *D. v. leucomelas*. Several nests full of noisy young were found in both years.

38. *Dryobates pubescens medianus*. DOWNY WOODPECKER.—Seen frequently about Walker but nowhere nearly so common as in the woodlands of Iowa. Several nests seen in the two years.

39. *Picoides arcticus*. AMERICAN THREE-TOED WOODPECKER.—Two fine males were seen along Shinobie River, May 27, 1903. We located what we supposed was the nest of one of them, but not having climbers along at the time and it being in an almost impassable pine stub, limbless, and charred by forest fires, we had to give it up. The cavity was fifty feet, at least, from the ground in the main trunk and was plainly new, and much worn about the entrance, where the birds in alighting had brushed off the black. Rapping on the trunk failed to bring out the female, but the nest was at such a height it would not be likely to.

The birds were very beautiful, with their black backs and yellow crowns. They were both very busy as long as we saw them, lighting on a tree trunk or snag they would work upwards, almost from the ground, frequently giving a rather shrill *cheep, cheep*.

40. *Sphyrapicus varius*. YELLOW-BELLIED WOODPECKER.—Quite common in 1902, but not so many were seen in 1903. A nest containing six fresh eggs was seen, May 31, 1902. This was about twelve feet from the ground in the main trunk of a live poplar. We saw another nest June 1, 1903, about 30 feet up, also in a poplar. The birds were about this nest, but it was empty.

41. *Ceophlæus pileatus abieticola*. NORTHERN PILEATED WOOD-

PECKER.—I saw or heard none in 1902, but this was simply bad luck, as in 1903 we heard three or four at different times around Walker, and May 22 Mr. Smith caught a glimpse of one as it left a snag on a hilltop. Their work on stumps and snags was frequently seen, and several times the quavering song was heard near at hand, but the trees were so close together it was no trouble for the bird to remain hidden. There were at least three pairs breeding within a few miles of Walker.

42. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.—A rare bird about Leech Lake. Only one was seen in 1902, on May 27, near Walker. June 1, 1903, we saw one near the same place, and a few days later saw it again.

43. *Colaptes auratus luteus*. NORTHERN FLICKER.—Could be called fairly common. Several nests seen both years.

44. *Antrostomus vociferus*. WHIP-POOR-WILL.—I heard but one in 1902. This was on June 8, on the hillside back of Walker, and although I was in the same locality several evenings after that I did not hear it again. In 1903 I heard the first call in the evening of May 23. No more were heard until the 26th, when two or three could be heard calling. After that two or more were heard every evening.

45. *Chordeiles virginianus*. NIGHTHAWK.—Very common in the evenings over the lake. We saw four nests in 1903, on the cleared hills back of Walker.

46. *Chaetura pelagica*. CHIMNEY SWIFT.—Quite common about Walker and frequently seen over the forests miles from the settlements. Many must nest in hollow trees, as they do in the southern swamps, because this region is very thinly settled. May 26, 1903, we found one building a nest on the wall inside of a vacant shanty on Kabakona Bay. Several were seen descending brick chimneys in the town of Walker, but there certainly are not enough chimneys to go around in that locality.

47. *Trochilus colubris*. RUBY-THROATED HUMMINGBIRD.—A common bird about Walker. In greatest numbers during the last week in May, showing that migrations were on then.

48. *Tyrannus tyrannus*. KINGBIRD.—Seldom out of sight along the lake shores, and railways, and near the cabins of the settlers. Several nests were seen both years.

49. *Myiarchus crinitus*. CRESTED FLYCATCHER.—Frequently seen and heard. In 1902, first heard on May 27; in 1903, one on May 22. No nests seen.

50. *Sayornis phœbe*. PHŒBE.—A common bird around the lake shores. I saw a nest containing five speckled eggs May 27, 1902.

51. *Nuttallornis borealis*. OLIVE-SIDED FLYCATCHER.—None seen by me in 1902, but, May 30, 1903, the loud call of one attracted us to it in a dry ravine back of Walker. We saw it, or others, in that vicinity for several days, and June 7, the females seemed to have arrived, as we saw two birds in pursuit of another. They were very active and noisy, and would not allow a near approach. The cry is one of the wildest of all

small bird calls, and is not to be confused with that of any other species, at least in the Mississippi Valley.

52. *Contopus virens*. WOOD PEWEE.—Heard every day we were in the woods about Walker.

53. *Empidonax traillii*. TRAILL'S FLYCATCHER.—Two seen and heard in the low thicket along the shores of the lake, June 5, 1902. I heard the low *pwet* of another May 25, 1903, in the same place. The form here may be referable to the northeastern form, *E. t. alnorum*, but we did not procure any specimens.

54. *Empidonax minimus*. LEAST FLYCATCHER.—An abundant bird, particularly in 1902. In that year, from May 26 to June 1, they were the most abundant bird, the *chebick, chebick* being constantly heard during daylight. They were not so numerous after June 1, but still could be called abundant. In 1903 they did not appear in such numbers, but we heard and saw them every day.

55. *Otocoris alpestris praticola*. PRAIRIE HORNED LARK.—I saw but one of these birds in 1902, and in 1903 we saw none. The one seen was near the Great Northern depot at Walker, June 5, after a shower. It was soaring and in full song. The country in that section is not suitable for this bird, and to that fact no doubt is due its scarcity.

56. *Cyanocitta cristata*. BLUE JAY.—Frequently seen and heard, but not in such numbers as further south.

I was told that the 'Camp-robber' (*Perisoreus canadensis*) appears about Leech Lake in cold weather, but does not remain during the summer.

57. *Corvus americanus*. AMERICAN CROW.—Common everywhere about the lake. Several occupied nests were seen both years. One pair in particular had our sympathy. They had a nest full of young in a scrub oak standing alone out on the marsh, where several pairs of Kingbirds, and thousands of Redwings were breeding. Every time a Crow made a move it was pounced upon by from two to a dozen of the smaller birds and forced to light for a time. The Yellow-heads would also join in at times, but they were not so persistent. The Redwings seemed to be the worst.

58. *Dolichonyx oryzivorus*. BOBOLINK.—Only one seen near Leech Lake in the two years. This was on June 9, 1902, at Kabakona Bay, and was a male in song.

59. *Molothrus ater*. COWBIRD.—Very common in the clearings and along the railroads, but were in greatest numbers in the town of Walker and vicinity, where they were in flocks of from 25 to 50, familiarly lighting in the streets and roads. Eggs of this bird were seen in nests of *Melospiza cinerea melodia*, *Melospiza georgiana*, *Dendroica pensylvanica*, *Seiurus aurocapillus* and *Wilsonia canadensis*.

60. *Xanthocephalus xanthocephalus*. YELLOW-HEADED BLACKBIRD.—Seen on all the marshes about Leech Lake, and there was a large colony at Minnesota Point. The full plumaged male is a striking bird with his

abruptly contrasting colors, and the noise made by a colony of them, when intruded upon, is rather exciting. The cries are rather unpleasant, being harsh and grating, yet after one has been with them a little time they do not seem out of tune with the wind's whistling over the grass and through the canes. Many beautiful nests were seen, one in particular I would have liked to have taken, but it contained young at the time. This was in a patch of canes at the edge of open water and was unusually large. What made it so handsome was that the bird had woven into the nest from the top several long stalks of a species of fox-tail grass, leaving the heads on, and five or six of these stood erect, plume like, around the edge of the cup. The usual number of eggs in a nest was three or four, but we saw one containing five.

61. *Agelaius phoeniceus*. RED-WINGED BLACKBIRD.—Abundant throughout that country. Every suitable place had its pair or colony. A great many nests were examined. They usually contained four eggs or young, often only three, and frequently five. In 1902 I saw one nest containing six eggs, and this year two nests with the same number.

62. *Icterus galbula*. BALTIMORE ORIOLE.—Common about the lake, but not as many were seen in 1903 as in 1902. All the nests seen were in birch trees.

63. *Quiscalus quiscula æneus*. BRONZED GRACKLE.—Abundant in the village of Walker and along the lake shores and in the marshes. During the two years many nests were seen and they seem to vary considerably in situation in that country. While the majority were open nests placed in forks or crotches of limbs or trees, several seen in 1902 were in cavities of trees and stubs. I found one nest in 1903 out on the open marsh, with a colony of redwings. This nest was woven together in the top of a clump of flags, and its weight had lowered it to within a few inches of the water. Its greater size than the near by redwings' nests attracted my attention, and I went to it. The nest contained two young, and two eggs on the point of hatching, and both grackles were there.

64. *Carpodacus purpureus*. PURPLE FINCH.—Common in 1902, but not so many were seen in 1903. Only one nest was seen in the two years. This was placed near the extreme top of a very tall balsam, and was found by Mr. Smith's seeing the female fly directly to the spot. We then saw that she was building, and we watched her at work for some time. This was on the 22d of May. On May 30, after a hard climb, Mr. Smith reached the nest, but it contained but one egg.

65. *Loxia curvirostra minor*. AMERICAN CROSSBILL.—May 29, 1903, while on a pine covered ridge on the Indian Reservation, near Kabakona Bay, a new note attracted our attention to the top of a tall Norway pine. Looking it up we found a party of three or four Crossbills industriously at work amongst the cones at the ends of the branches. We watched them for quite a while, they apparently giving us no thought. They were still in this tree when we left them.

66. *Astragalinus tristis*. AMERICAN GOLDFINCH.—Common in all places suited to the bird.

67. *Spinus pinus*. PINE SISKIN.—I found this bird not uncommon, in parties of from 6 to 30, in the tamarack swamps in 1902. In 1903 we did not see any. I have no doubt they bred there in 1902, as on the 8th and 9th of June I saw several groups feeding near the ends of branches of balsam trees. The whole flock seemed to keep up a twittering sort of a conversation, and at times one would break into a low, rather sweet song.

68. *Poæcetes gramineus*. VESPER SPARROW.—In 1902 they seemed to be rather scarce. That year I saw but one nest; this was on June 3, and it contained three young. In 1903, we found them to be common around Walker in the bare or cleared places, along the railroads or wagon roads. This year we saw six nests, five containing four eggs each, and one four young.

69. *Zonotrichia albicollis*. WHITE-THROATED SPARROW.—Abundant in the partially cleared country about Walker, and often heard in the wilder forest regions.

We saw many nests containing from three to six eggs. May 31, 1903, I found one nest containing four newly hatched young, but this seemed to be an unusually early pair. At that date most of the nests had incomplete sets or the eggs were fresh. The nests were all much alike, being sunken to the brim, and as a rule well hidden under brush or a rank growth of ferns, plants, etc. Several were placed just at the foot of small white pine shrubs and in such cases were completely concealed. There were exceptional cases where the nest could be looked into without disturbing any of the surroundings. One nest in particular, along a path, was in plain sight with no concealment, but the owners had deserted it before laying. There were other nests that were hard to find even after flushing the bird. One I saw in 1902 was well under a dead tree top and I did not find it until I had removed some of the brush. The bird does not flush directly from the nest like the Vesper and Song Sparrows, but runs off like a mouse.

70. *Spizella socialis*. CHIPPING SPARROW.—Common about the settlements, and along the railroads and wagon roads. Found with, but not nearly so numerous as the next. Many nests found, usually placed in small pine shrubs.

71. *Spizella pallida*. CLAY-COLORED SPARROW.—A plentiful bird in the brush land around Walker and along the railroads. It is a pretty little sparrow, with a confiding manner, but an unpleasant song. They were constant singers, too, while we were there, and it is one of the few bird songs I have found disagreeable. It is a buzzing, rasping noise, a little like the song of the cicada, but not so musical, and given with much vigor. A friend who was with me part of the time in 1902, would call the bird nothing but the "rasper," and I thought the name very appropriate.

They inhabit much the same kind of a country as does *S. pusilla* further south, and they nest in much the same manner. As a rule the

nests were placed within a few inches of the ground, and if a scrub white pine bush was handy it would invariably be used. I have seen no nest over three feet above the ground, and several were resting upon the ground in a clump of wintergreen or other rank growth. The nest resembles that of *S. socialis* in general style, but has less of the hair lining so characteristic of that bird. As a rule *S. pallida* uses a very fine, light-colored wire grass for this purpose. The number of eggs was usually four, sometimes only three, and only once did I see a nest containing five.

72. *Melospiza cinerea melodia*. SONG SPARROW.—The most abundant songster of that country. Found everywhere, but in greatest numbers in and near the settlements. Common also on the marshes with *M. georgiana* and on the dry hillsides and in the 'burns' with *S. pallida* and *Z. albicollis*. Every cabin or shack had its pair near by, and they were always within sight and hearing along the railroads.

73. *Melospiza lincolni*. LINCOLN'S SPARROW.—This bird was first seen on the marsh at Minnesota Point May 24, 1903. I heard it from the boat as we approached land and noticed that the song was something I had never heard before. The bird would allow quite a near approach, and was in full song from the top of one of the small birch shrubs scattered over the marsh. We spent an hour or so in the immediate vicinity trying to flush his mate but without success. The bird was there when we left, but upon another visit to the same place, May 31, he could not be found. May 27, 1903, we found another in song in a similar locality; this one also seemed attached to the place but was not seen there on May 31.

74. *Melospiza georgiana*. SWAMP SPARROW.—Abundant on all the marshes. A vigorous singer, but the song is lacking in sweetness and is rather monotonous. Many nests were seen in the tussocks, usually containing four or five eggs.

75. *Passer domesticus*. HOUSE SPARROW.—Common about the streets of Walker.

76. *Pipilo erythrophthalmus*. TOWHEE.—Fairly common on the cut-over hills back of Walker. Several nests seen in 1903 contained each three or four young or eggs.

77. *Zamelodia ludoviciana*. ROSE-BREADED GROSBEAK.—June 5, 1902, I heard one but saw none. In 1903 we found them fairly common.

78. *Cyanospiza cyanea*. INDIGO BUNTING.—Only one seen in the two visits.

79. *Piranga erythromelas*. SCARLET TANAGER.—Seen and heard frequently both years.

80. *Progne subis*. PURPLE MARTIN.—Common about the settlements and along the lake shores. At a distance from human habitations, they were using cavities in stubs for nesting places. One oak stub in particular was in demand on Minnesota Point. It was standing by itself on the lake shore, at a distance from other trees, and a pair of martins and a flicker were battling for possession of a cavity, with a pair of Tree Swallows flying around in a wistful manner.

81. *Tachycineta bicolor*. TREE SWALLOW.—Seen about the ponds and smaller lakes near Walker and along the shores of Leech Lake. In 1903 we saw three cavities in use as nesting places. They were in stubs standing at the edge of the water.

82. *Riparia riparia*. BANK SWALLOW.—An abundant bird about Leech Lake.

83. *Ampelis cedrorum*. CEDAR WAXWING.—A plentiful bird, but much more numerous in 1902 than in 1903.

84. *Vireo olivaceus*. RED-EYED VIREO.—Abundant throughout that region. It seems to be as numerous about Leech Lake as it is in Iowa and Missouri, and certainly is one of the best distributed birds of the Mississippi Valley.

85. *Vireo gilvus*. WARBLING VIREO.—But one was seen near Walker. This was May 27, 1902, when one appeared in song. Thirty or forty miles southwest of Walker, I found them to be a common bird May 29, 1902, and several were seen near Brainerd sixty miles south of Walker by Mr. Smith May 21, 1903. In both localities the country is well cultivated.

86. *Vireo solitarius*. BLUE-HEADED VIREO.—Several seen May 23, 1903, but could not find them later. Both sexes were represented.

87. *Mniotilta varia*. BLACK AND WHITE WARBLER.—Common in 1902, and one of the most abundant of all warblers in 1903.

88. *Helminthophila chrysoptera*. GOLDEN-WINGED WARBLER.—May 22, 1903, I found one—a male in song—in a small swamp along the railroad near Walker.

89. *Helminthophila rubricapilla*. NASHVILLE WARBLER.—We found this species to be quite common. June 17, 1903, Mr. Smith flushed a female from a nest containing five incubated eggs. The locality was a small swamp along a brook near Walker, and the nest was sunken into a hummock of moss near the foot of a balsam. A clump of *Dalibarda*, growing just in front of the nest, completely hid the eggs from view with its big leaves.

90. *Compsothlypis americana usneæ*. NORTHERN PARULA WARBLER.—Found in every swamp where there were balsam and tamarack.

91. *Dendroica tigrina*.—CAPE MAY WARBLER.—But one seen. This was on May 25, 1903, near Long Lake, southwest of Walker. It was with a group of other warblers of which there was a great flight that morning.

93. *Dendroica æstiva*. YELLOW WARBLER.—One of the most numerous of all the birds, keeping to the partially cleared hills and 'burns,' with their thickets of hazel and alder. Many nests were seen.

94. *Dendroica cærulescens*. BLACK-THROATED BLUE WARBLER.—First found May 22, 1903, and at a later date it was in the same place. This was a male in song, and from his staying in the vicinity we supposed there was a nest near, but we did not see it or the mate.

95. *Dendroica maculosa*. MAGNOLIA WARBLER.—One seen May 28, 1902, and several seen during our stay in 1903. During 1903 one male in particular attracted our attention by his great beauty and sprightly song

and movements. We saw him several times at the edge of a woodland along a brook near Walker. The last day we were there, June 7, he was still in the same place, and I have no doubt had a mate and nest in the vicinity.

96. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.—Perhaps the most abundant member of the family. Found in all the alder and hazel thickets, and around the clearings and in the 'burns.' Very tame and pretty. Many nests seen contained from three to five eggs.

97. *Dendroica striata*. BLACK-POLL WARBLER.—Scarce in 1902, but fairly common in 1903 throughout our stay. I have no doubt it breeds there, although we saw no nests.

98. *Dendroica dominica albilora*. SYCAMORE WARBLER.—This bird was first seen May 26, 1903. Its song attracted us to the locality, and we spent perhaps two hours watching him. During this time he moved around slowly from one perch to another, constantly singing, often coming down on the lower branches above us, where we could see him quite well. The beautiful yellow throat, the triangular spot of black on the side of the head and the white spot on the eyelid could plainly be seen. This bird visited not over half a dozen trees while we were there, spending most of his time in an oak and a large white pine. June 1 we went back to the same locality and found him there again, and he spent his time in exactly the same trees. Once Mr. Smith saw him chase a bird, perhaps his mate, off into the undergrowth, soon returning. We saw no nest, but there must have been one at no great distance—we thought in the white pine.

99. *Dendroica vigorsii*. PINE WARBLER.—One of the common Warblers around Leech Lake. In spite of this bird's abundance but one nest was seen in the two years. This was placed in the tuft at the end of a branch of a Norway pine and could not be seen from the ground even after we knew where it was. If all were hidden like this it is not surprising we saw no more.

100. *Seiurus aurocapillus*. OVEN-BIRD.—Seemingly as numerous on the birch and poplar clad hillside about Leech Lake, as under the white oaks and maples of Southern Iowa. Several beautiful nests were seen, containing from three to five eggs each.

101. *Geothlypis philadelphia*. MOURNING WARBLER.—A common bird about Walker. I had understood this species confined itself to wet woodlands, as does the Kentucky Warbler of the South, but such is not the case about Leech Lake. They were on the dry hillsides, about the burns and clearings, and about the alder and hazel thickets. They inhabited the same territory as *Zonotrichia albicollis*, *Wilsonia canadensis*, *Hylocichla fuscescens*, *Dendroica aestiva* and *Dendroica pensylvanica*. Occasionally we saw them along old logging roads crossing the swamps, but the greatest numbers were on the higher ground, seemingly preferring brush to timber.

I saw several nests both years and they are all much alike in construc-

tion and situation. They are placed like the Kentucky's, on the ground, at the foot of a clump of rank growth, such as wintergreen, wild strawberry, wild currant, grass, etc., sometimes resting in the growth so that it raises the nest a little from the ground as it grows. The nest is often in plain view from one or more directions, its concealment depending more upon its color and the leaves growing around it than upon any particular care of the birds. The number of eggs laid seems to be four, as I saw only one nest containing five.

102. *Geothlypis trichas occidentalis*. WESTERN YELLOW-THROAT. — Very common in suitable places. The bird around Leech Lake may be the newly recognized northern form *G. t. brachidactyla*, but we did not take any of the birds.

103. *Wilsonia canadensis*. CANADIAN WARBLER. — Quite common on the partially cleared hillsides near Walker, and along the railroads. They inhabit much the same country as the Mourning Warbler around Leech Lake, but are more frequently found at the foot of the hills, along the brooks, and at the edge of the damp places.

In 1902 I saw only two nests, but in 1903 I saw several. One nest seen in 1902 was placed in a clump of long dead grass, and almost on the ground after the manner of a Yellow-throat. This nest was in the middle of an old road on the top of a low hill in brush land and was very different in construction from those seen this year. It was composed entirely of long dry grass, without any dead leaves, while those seen in 1903 were built principally of large dead leaves. The other nests varied considerably in situation, the most of them being several inches above the ground in low growth — one at least ten inches up. One nest seen in 1903 was placed on the ground at the side of a stock path in a dense growth of wild currants and was the only one completely hidden. The number of eggs laid was usually four and in only one case did I see five.

104. *Setophaga ruticilla*. AMERICAN REDSTART. — Very common. Several nests seen.

105. *Galeoscoptes carolinensis*. CATBIRD. — Fairly common along the wooded lake shores and in the thickets around Walker. Several occupied nests were seen containing from three to five eggs.

106. *Toxostoma rufum*. BROWN THRASHER. — Not uncommon about the thickets and clearings around Walker in 1903. In 1902 they were scarce. Several nests seen, and *all* of them were sunken in the ground after the manner of a Towhee's. In Iowa I have seen the nest thus placed, but it is very unusual, and it is strange that the Leech Lake bird should prefer such a situation, though there must be a reason.

107. *Troglodytes aëdon aztecus*. WESTERN HOUSE WREN. — Common alike about the settlements and in the woodlands along the lake shores. Several occupied nests seen.

108. *Cistothorus stellaris*. SHORT-BILLED MARSH WREN. — Quite a colony on the marsh around Kabakona Bay in 1902, but this was burned over during the winter and this season (1903) we found but one male

singing in the whole place. This year we found a small colony along the Shinobie River, May 27. Several nests were seen, but only two were occupied. One contained four and the other six delicate white eggs.

Like *T. palustris*, the males are great singers at their summer homes, but the song is less pleasing. In the rank grass and sedge the bird would be singing almost at one's knees and yet out of sight. Occasionally one would mount to a higher perch to sing, after the manner of the Grass-hopper Sparrow.

109. *Telmatodytes palustris*. LONG-BILLED MARSH WREN.—Scattered in single pairs amongst the cane beds about Minnesota Island. Several nests seen but only one containing eggs. This was on the 2d of June, 1902, and there were six fresh eggs in the nest. A great singer with a sweet voice.

110. *Certhia familiaris americanus*. BROWN CREEPER.—One seen and heard in song, May 25, 1903, at the edge of a small lake along the Great Northern Railroad two miles west of Walker.

111. *Sitta carolinensis*. WHITE-BREASTED NUTHATCH.—Several were seen both years, but it cannot be called a common bird about Leech Lake.

I was rather disappointed in not finding *S. canadensis*, as I expected to meet with it.

112. *Parus atricapillus*. CHICKADEE.—Frequently seen and heard but not abundant.

113. *Hylocichla fuscescens*. WILSON'S THRUSH.—The abundant thrush of the region.

We saw a great many nests containing three or four eggs, and one containing five. The nests were placed on the ground, in a clump of black alder near the ground where sprouts had shot out from a stump, on top of low stumps, or four feet up in shrubbery. When the nests were on the ground they were fairly well hidden, but several we saw were placed on top of stumps in plain view, and at the side of paths. Many of the eggs had small dots of brown scattered over them, and several were freely freckled.

114. *Hylocichla aliciae*. GRAY-CHEEKED THRUSH.—Very abundant in 1902, from May 26 to 29. None seen after the first of June and none at all in 1903. While they were passing through in 1902 the low, pleasant song reached one from dozens of places on all sides.

115. *Hylocichla guttata pallasii*. HERMIT THRUSH.—Rather rare about Walker and more retiring than the Veery. It seemed to prefer the wilder forests and was very shy. We saw several nests containing three or four eggs each. The nests were on the ground, or a few inches from it, and were exactly like those of *H. fuscescens*. The eggs also looked alike, those of this species being slightly larger and a shade lighter in color.

116. *Merula migratoria*. AMERICAN ROBIN.—Common about the settlements and in clearings. Several occupied nests seen about Walker.

117. *Sialia sialis*. BLUEBIRD.—Several pairs seen about Walker. They were nesting in dead stubs about the clearings.

BIRD MIGRATION PHENOMENA IN THE EXTREME LOWER MISSISSIPPI VALLEY.

BY HENRY H. KOPMAN.

IT CAN be imagined easily enough that to take up all the considerations suggested in the title set to this article would be beyond the possibilities of a single paper for 'The Auk.' My intention is simply to pick out from among the general phenomena of southern Louisiana and southern Mississippi bird migration those important facts to which the general attention of the ornithological world has never been drawn. Aside from the ornithologists of the Department of Agriculture, to which several observers in this section have reported regularly every spring and fall for the past ten years, scarcely any of our ornithologists are acquainted with the striking peculiarities detected in bird migration in this latitude. One of the prominent tendencies, noted by me in a former brief communication to 'The Auk' (Vol. XX, July, 1903, pp. 309, 310), is procrastination in spring migration. A corresponding tendency is seemingly premature arrival in the fall. Under the first head, a very striking case is that of the three transient thrushes of this latitude, the Wilson's, the Gray-cheeked, and the Olive-backed. The case of these birds comes very readily to mind because it was only the past spring that I settled an important phase of their migrations through Lower Louisiana. Every spring for the past ten years, and not infrequently in the fall, I have been puzzled by a querulous whistle, to be heard, with few if any exceptions, in heavy night migrations the latter part of April and the early part of May, and again the latter part of September. As my knowledge of the conditions of migration have grown I have attributed this note to several species, each time discovering the impossibility of the suspected bird being the author, until I hit upon the Yellow-breasted Chat as the chief actor in the heavy migrations of the late spring and of the middle fall. In this belief I rested with fair security, so like the mellow *whoort* of the Chat was the oft repeated note of the night migrations. My first record of this note was the night of April 25, 1894. Heavy rains and an electric storm early in

the evening had made the conditions excellent for migration. The tremulous whistle was caught up as frequently as the notes of Yellow Warblers, Indigo Buntings, Sandpipers, Green Herons, and Night Herons. More than nine years later, May 9, 1903, I settled the mystery that had perplexed me more than any question that had come up in my experience. I caught one of the birds making the same note in the day-time. It was a Wilson's Thrush. Of all the guesses I had made, I had been unsuspecting of the thrushes. The abundance of the birds heard in night migration had led me off the track. As a bird of the woodland, the Wilson's Thrush is so retiring, and therefore seen so infrequently that one would scarcely hit upon it as the incessantly heard migrant. Once I had heard the note, however, I wondered that I had not before recognized the famous *whew* or *whoit* by which John Burroughs characterizes the voice of the Veery. It was dumbfounding to think that while in all my ornithological observations in this section I had never seen a score of Veeries in the course of ten springs, I had heard countless hundreds. Since the spring of 1897 I had known that both the Gray-cheeked and Olive-backed, especially the former, might appear in astonishing numbers as transients in late April and the first week of May. In hedges, weedy places, and willow thickets in pastures and other open places, I had seen scores of Gray-cheeked Thrushes in a single day the early part of May, but the Wilson's Thrush had been a consistent rarity. For the latter part of spring, in this section, it may be stated as a general proposition that these three transient thrushes will be found migrating together. I have come across heavy waves of the Gray-cheeked and the Olive-backed on various occasions the latter part of April and the early part of May. Usually at the same times the note of the Veery may be heard in night migration. The past spring I observed both the Gray-cheeked and the Wilson's together in a thicket of willows and hackberries between the new and the old levee at Audubon Park, New Orleans. The birds were detained by a slight temporary fall in the temperature that first became apparent May 9. I spent half a morning watching just these thrushes, and it was after watching for some time that I first heard the note of the Wilson's. The first day I could not see any of the Wilson's

Thrushes as they made the note, but the next day one called as I watched it through my glass. The Gray-cheeked were present only the 9th and 10th, but I last observed the Wilson's in the woods May 13, and the last were heard in night migration midnight of May 16. This is the latest the Wilson's Thrush has ever been recorded in southern Louisiana, as the 10th of May is the latest for the Gray-cheeked Thrush. The Olive-backed probably remains as late, but there is no later record than May 4.

As the abundance of these rarer thrushes is often a characteristic feature of the late spring migration of this section, so the absence of most of the less common *Dendroica* is also characteristic. When they do occur, however, it is almost entirely very late in the season, as in the cases of the thrushes. The Black-throated Blue Warbler is an exception to the latter statement. It is rare, but of the two records of its occurrence of which I know, both fell before the first of April. The Magnolia Warbler, however, the Blackburnian, the Chestnut-sided, the Bay-breasted, and the Black-throated Green, are usually seen, if at all, in the late spring. At New Iberia, La., in the south central part of the State, where the prairies begin to encroach, I have seen a female Bay-breasted Warbler May 15. Strange enough, the weather at the time did not show the usual fall in the temperature that accompanies, or, perhaps, causes the tarrying of the spring travelers. A majority of the few records for the occurrence of the Bay-breasted Warbler at this latitude in spring occur between the 25th of April and the 10th of May. The appearance of the Redstart at New Orleans and other points near it in spring occurs mostly at the same time. With the Bay-breasted Warbler seen at New Iberia there was a male Redstart. The Tennessee Warbler has recently been proved to have the same propensity. The past spring the only Tennessee Warblers I saw at New Orleans, and among the few of which I have any spring records, were noted between April 26 and May 9. Some were present almost every day of that period, and they seemed to be lingering contentedly.

Outside of the Warblers and Thrushes, there are other species that loiter unaccountably. For several years in succession the American Pipit was seen in abundance at New Orleans as late as the 20th of April. Small flocks would be seen even until the end

of the month and the last date has twice been set at May 2. The Savanna Sparrow always remains until after the first of May, and the last has been seen May 9. Like the Pipit, the Rusty Blackbird has been seen as late as May 2, and small singing flocks have been on hand at New Orleans until the very last week of April. May 7, Andrew Allison has seen the last Water Thrush (*Seiurus noveboracensis*) at New Orleans. It was with a week's wave of warblers, thrushes, and a sprinkling of a few other species, notably the Rose-breasted Grosbeak and the White-crowned Sparrow. The White-crowned Sparrows, four of which were seen May 1, were the only ones I have ever observed at New Orleans, and the only ones I have seen in this latitude in spring. Noted a month after the latest date I should have expected to find them, these birds have always seemed to me remarkable instances of the tendency towards retarded migration. The greatest of all the loiterers are the Waders. Almost no date is too late for some of the species, and it is doubtful whether all individuals of certain of the species believed to breed only in the far North ever leave the region of the Gulf Coast in summer. At Cameron, La., on the southwest coast of Louisiana, I saw four or five Sanderlings on the beach June 30, last. While the return of the waders to the lower Mississippi valley begins very early, I am hardly disposed to believe that these birds were returning migrants. Whether there had been any at Cameron earlier in June I was unable to know, as I had not been there before. The earliness of the fall migration in southern Louisiana and Mississippi, however, is remarkable. Pectoral, Solitary and Bartramian Sandpipers are almost certain to be back by the middle of July, and other species return in quick successive order. From the nature of their flight, however, the early return of the waders is to be expected, but how are we to explain the presence of the Black-throated Green Warbler in southern Mississippi July 30? In 1897 I took one on that date, during a very heavy migration at Beauvoir, Miss., on the Gulf Coast. Redstarts, Black-and-White, Cerulean, Yellow, and Prairie Warblers, which at the most are very rare breeders in southern Mississippi, the Redstart certainly not breeding that far south, appeared in considerable numbers at the same time and some had appeared two weeks or more before. Aug. 11, the Water-Thrush (*S. noveboracensis*) fol-

lowed. August 12 I took a specimen of the Golden-winged Warbler. At Bay St. Louis, Miss., Andrew Allison has taken Blackburn's Warbler, Aug. 11. While it is not always the same species that shows this unexpected tendency, it happens in one case or another with too much frequency to be disposed of on the ground of fortuity. It is obvious also that birds of about the same class have been participant in the tendency. These early movements have been known to include the rarer vireos also. In 1893, the Philadelphia Vireo, which had appeared furtively during the last days of July in a heavy growth of willows on the batture land of the Mississippi at Convent, La., forty miles up the river (west) from New Orleans, appeared in astonishing abundance August 2. I took one specimen, but there was no need of killing more, as the birds were about me on all sides. In spring, during the time of abundance of the Warbling Vireo, which is a common breeder along the Mississippi in southern Louisiana, I have never seen the Philadelphia Vireo, but beside the record just noted, I have several other records of its occurrence in this section in fall, always later, however, than on the above occasion. As for the Blue-headed Vireo, H. L. Ballowe (now Dr. Ballowe), of Diamond, La., on the Mississippi thirty miles south of New Orleans, sent me in 1893 a specimen of this bird that he killed August 4. Taken all in all, this is probably the most remarkable of these early records. The Blue-headed Vireo is a winter resident in the wet woods of southern Louisiana, but it commonly appears only at the beginning of the winter. The August record seems more in the nature of a 'freak' record than do any of the other records. A rare bird in this part of the South, whose case, nevertheless, is very clearly indicated as that of a bird preferring early fall migration, is the Olive-sided Flycatcher. In 1894 Mr. Ballowe sent me a specimen he had killed at Diamond, August 31. Andrew Allison recorded the Olive-sided Flycatcher at Bay St. Louis, August 29, 1902, and the present season I saw one August 16, at Covington, La., like Bay St. Louis, in pine woods. Covington is less than forty miles north of New Orleans.

One of the strange features of the early fall migration of this latitude is that it is composed chiefly of those species that in spring give little of their presence here, especially in the fertile alluvial of the Mississippi delta. Such are the Yellow Warbler, the Red-

start, the Black-and-White Warbler. The Yellow Warbler appears at New Orleans from further north about the middle of July, and by the last week of the month Yellow Warblers are present by hundreds. Even when appearing in waves in the spring, the Yellow Warblers are always restricted in their numbers at that season. As for the Black-and-White Warbler and the Redstart they are rarities at New Orleans in spring. Not so after the first of August. They are always to be found in reasonable numbers in the woods after that date and sometimes in large numbers. The Tennessee and Magnolia Warblers do not agree with the foregoing in being particularly early fall migrants, but they do agree in being the most abundant of our birds in the fall, and among the rarest in spring. The time of their arrival in fall approximates September 20.

THE CORRECT NAME OF THE PACIFIC DUNLIN.

BY S. A. BUTURLIN.

WHEN publishing, in 1902, Part I of my 'Limicolæ of the Russian Empire,' it was not without much hesitation that I proposed to give a new name to the Fantail Snipe of East Siberia,¹ as Vieillot's old one, *Scolopax sakhalina*, was a very suggestive one. But Vieillot's 'Nouveau Dictionnaire' was not to be found in Russia (not even in the Academical Library), and as H. Seebohm, R. B. Sharpe and others quote "*Sc. sakhalina*" invariably with a "?", I preferred to give a new name to the East-Siberian Snipe.

Through the extreme kindness of Mr. Charles W. Richmond,

¹ *Scolopax (Gallinago) gallinago raddei* nests from Yenesei eastward; differs from *Sc. (G.) gallinago* Linn. in having more white on the wing-lining and axillaries; the chest not so mottled with brown; feathers of the upper parts somewhat more mottled with rufous; the sandy buff edges of the scapulars and the feathers of the upper back much broader, some .08-.16 inch broad; pale central stripe along the crown also broader.

of the U. S. National Museum, Washington, I received afterwards (*in litt.*) a copy of Vieillot's description. As the work is rare; it is better to quote fully.

"LA BÉCASSINE SAKHALINE, *Scolopax sakhalina*, Vieill., (pl. 85 d'un ouvrage russe publié par Sakhalin), se trouve en Russie. Elle a le dessus de la tête, du cou, des ailes et de la queue d'un fauve rougeâtre varié d'un grand nombre de taches brunes; le tour du bec et la gorge blancs et bruns; la poitrine de cette dernière couleur, mais uniforme; les côtés du ventre, les plumes de l'anus et le bord des grandes penes alaires blancs; le bec et les pieds bruns." (Vieillot, *Nouv. Dict. d'Hist. Nat.*, III, 1816, p. 359.)

"Breast uniformly brown" cannot possibly be intended for a Fantail Snipe (*Gall. gallinago* Linn. or subsp.), and is a gross exaggeration even for a Solitary Snipe (*G. solitaria* Hodg. et. subsp.). Amongst Palæarctic waders only the Dunlin (*Tringa* or *Pelidna alpina* Linn. et subsp.) the above description applies better. The including of the Dunlin in one genus with snipes is not to be wondered at, as Pallas (*Zoogr.*, 1811, II, p. 176) did the same.

Vieillot's description, however, is none too good, though plainly referable to the Dunlin; and it was necessary to inquire the source of his information, "un ouvrage russe publié par Sakhalin." Scientific books of Natural History or Travel previous to 1816 (date of Vieillot's work) were rarely published in the Russian language, but I tried in vain to trace Mr. Sakhalin, a name of a Russian writer or artist quite as unknown to my friends as to myself.

At last I thought of Gray's splendid work, and my friend M. N. Michaylowsky has sent me the following quotation (from St. Petersburg. Akad. Library) from Gray's *Gen. Birds*, III, 1849, p. 283. "? 25. *G. sakhalina* (Vieill.) N. *Dict. d'Hist. Nat.* iii, 359, *Krust. Voy.* t. 86."

Here Vieillot's somewhat vague original quotation of a "Russian work by Mr. Sakhalin" is rendered quite clear, as the name of the gallant Captain Krusenstern, first Russian circumnavigator of the Globe, is well known to all interesting themselves in Natural Science. The copies of the original (Russian) edition of his

'Voyage' are very rare, but Mr. Af. Al. Illyne in St. Petersburg most kindly sent me a copy.

The text (Russian) is in three small quarto volumes, issued, Vol. I in 1809, Vol. II in 1810, and Vol. III in 1812. The first two contain the Narrative of the voyage round the World in 1803, 4, 5 and 6, and the third contains some of the scientific results. The botanical and zoölogical results were intended to be published in Vol. IV (see Vol. III, pp. iii and iv), but unfortunately it was never published. From pp. iv and 7 of Vol. I we know that plates of natural history objects were drawn by Dr. Tilesius of Leipsic, the naturalist of the expedition.

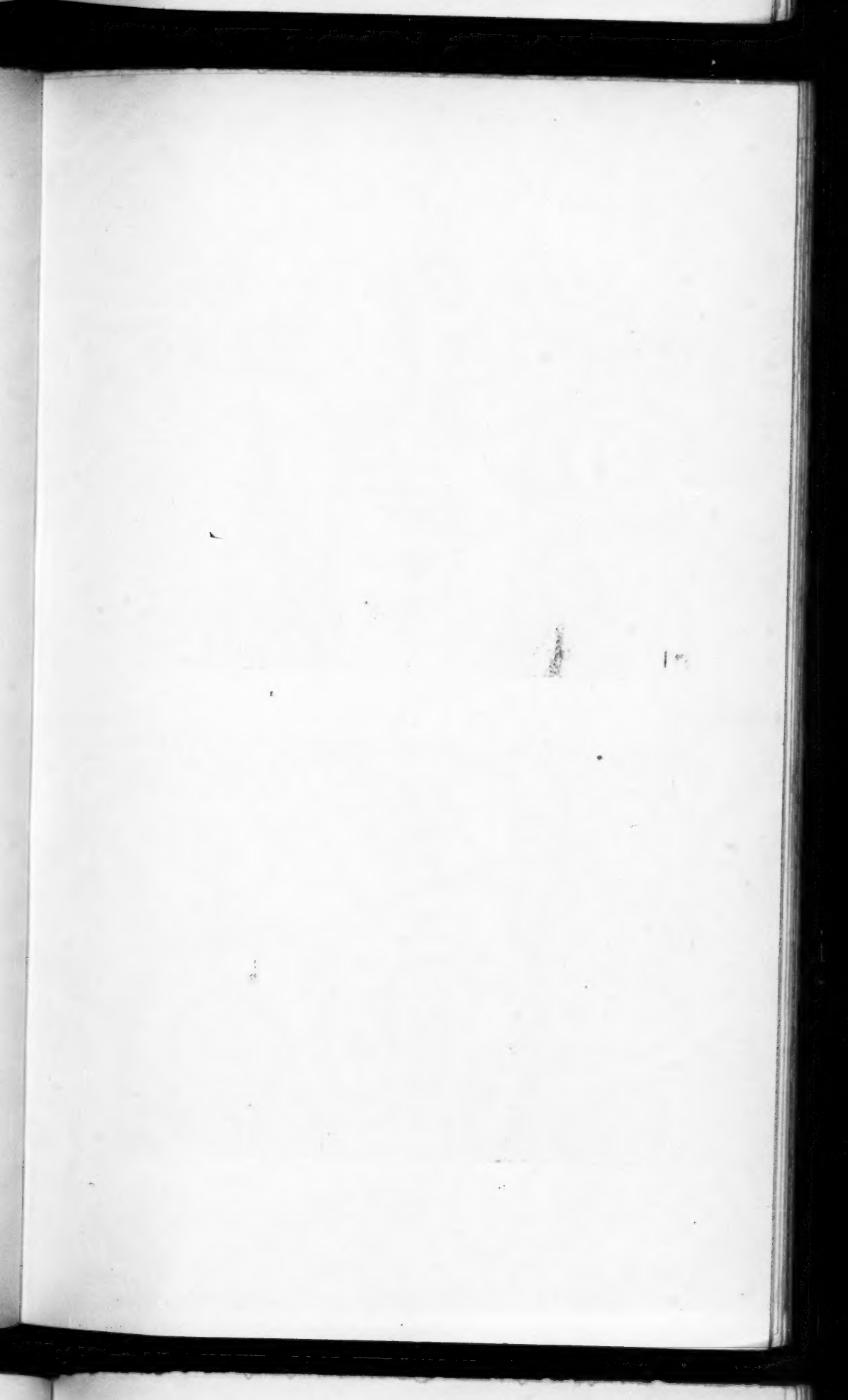
To the text is adjoined a big in-folio Atlas of XCVIII Plates, issued in St. Petersburg in 1814 and bearing the following title:

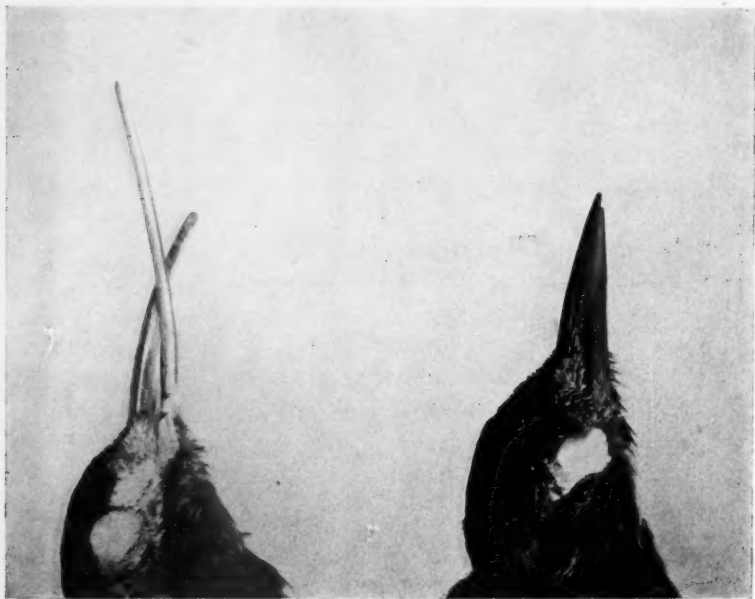
Atlas | zur | Reise um die Welt | unternommen auf Befehl | Seiner
Kaiserlichen Majestät | Alexander der Ersten | auf den Schiffen Nadeshda
und Neva | unter dem Commando | des Capitans von Krusenstern. | St.
Petersburg. | 1814.

Curiously enough, Gray must have quoted Tab. 86 by a lapsus calami (or a typographical error),—as Vieillot also quoted Tab. 85: Tab. LXXXV of Krusenstern's Atlas represents a Wagtail (perhaps *M. leucopsis* Gould) and a Titmouse, and Tab. LXXXVI is a bad figure, that I take for a young *Heteractitis brevipes* Vieill. (it is termed "*Tringa meleagris*" on the plate, or "Die Braune Weispunctierte Meerlerche").

But Plate LXXXIV represents very well the type of Vieillot's description; it is a fairly accurate, natural size (I presume) figure of the Pacific Dunlin in breeding dress, with the typical, for the Pacific form, pure white band across the chest, above the black patch. The wing is 121 mm. (4.76 inch) long, and the culmen 38.5 mm. (1.51 in.); in the right upper part of the Plate the bill is drawn as seen from above and nearly 1.5:1 of the natural size (55.5 mm.); the outlines are clearly those of the Dunlin bill, only it is made too straight. The bird on the plate bears not only a Russian name,¹ but also "*Tringa Variegata* oder der Bunte Sachalinische Strandläufer"; it is stated also that the plate is by Dr. Tilesius ("Tilesius p: Petroff sc:").

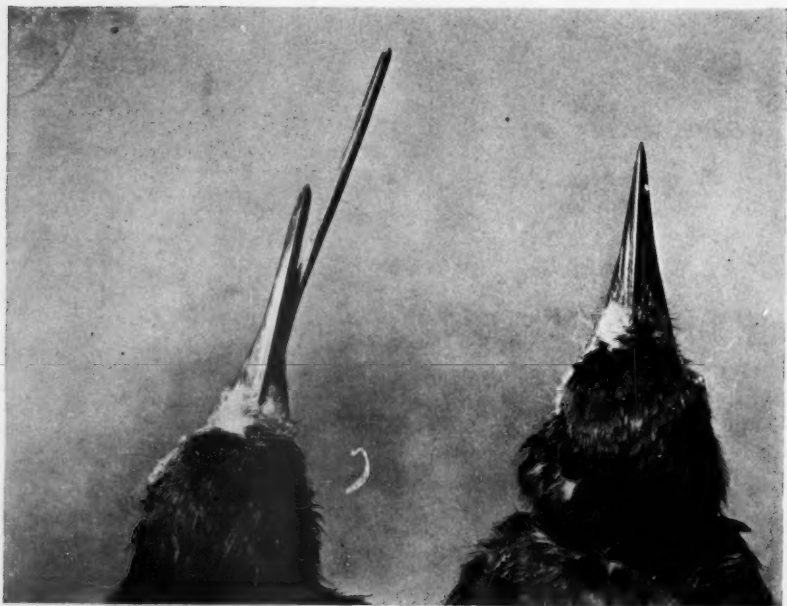
¹ Indicating that the bird is from the island Saghalien.





1.

2.



3.

4.

BILL OF PORTORICAN WOODPECKER.

Figs. 1 and 3, deformed; figs. 2 and 4, normal.

I am quite satisfied now, that *Tringa alpina* var. *americana* Cassin, B. N. Amer., p. 719 (1858), *Pelidna pacifica* Coues, Pr. Acad. Nat. Sci. Philad., p. 189 (1861), and the much earlier *Scolopax sakhalina* Vieillot, N. Dict. d'Hist. Nat., III, p. 359 (1816), are only synonyms of *Tringa variegata* Tilesius, Atlas Krusenstern. Reis., Pl. LXXXIV (1814).

I think that Tilesius's name must be accepted for the Pacific Dunlin,¹ as *Tringa variegata* of Gmelin (Sys. Nat., I, p. 674, 1788) is not a *Tringa* at all, but (being a synonym of his *Tringa virgata*, ibid.) a type of quite a distant genus of waders: *Aphriza* Audubon (1839). But those who consider that Gmelin's *Tringa variegata* invalidates Tilesius's name must accept Vieillot's name and call the Pacific Dunlin *Tringa* (*Pelidna*) *alpina sakhalina* (Vieill.).

I add to this note an accurate photograph (nearly 1:1.4 nat. size) of Tilesius's Plate.

1903, Oct. 7,

Russia, Esthonia, Wesenberg.

AN ABNORMAL BILL OF *MELANERPES* *PORTORICENSIS*.

BY B. S. BOWDISH.

Plate XI.

ON June 27, 1901, I shot a male *Melanerpes portoricensis* from a tree in a coffee plantation on a hillside near Mayaguez, P. R. The specimen is No. 177842 of the National Museum collection and was loaned to me for the purpose of making illustrations and measurements.

This bird, which was in company with an apparently quite nor-

¹And it should stand as *Tringa* (*Pelidna*) *alpina variegata* Tilesius, as it is only subspecifically distinct. I must add, that I see no reasons for even subgenerically dividing Dunlins, Knots, Purple and Curlew Sandpipers, etc.

mal female, possessed a beak abnormally developed in a most interesting manner. An injury near the base of the lower mandible, partially breaking it away, as a shot might do, seems to have caused this growth.

The theory that I have evolved to account for it, is that as the wound healed the edges contracted, warping the mandible toward that side and tending to the corkscrew-shaped growth that the mandible exhibits. The bird was debarred from hammering by the weakened and misshapen bill, and the growth which normally would have replaced wear, abnormally prolonged both mandibles, though why the lower so much more than the upper I cannot readily understand.

The measurements of this bill are: length of upper mandible, (exposed culmen), 1.33 in.; lower mandible from symphysis, 1.85 in.; width at base, .34 in.

The extent of the abnormal growth can be better appreciated by a comparison of a table of measurements of bills of nine specimens in my collection:

Sex.	Date.	Upper mandible.	Lower mandible (from symphysis).	Width.
♀	Aug. 27	.80 in.	.50 in.	.30 in.
♀	Dec. 1	.85 "	.57 "	.30 "
♂	Aug. 25	.98 "	.60 "	.35 "
♂	Sept. 6	1.00 "	.62 "	.32 "
♂	Jan. 31	1.10 "	.70 "	.33 "
♀	Sept. 25	1.96 "	.60 "	.34 "
♀	Feb. 10	1.10 "	.68 "	.35 "
♀	Dec. 28	1.06 "	.72 "	.33 "
♀	Aug. 14	1.02 "	.65 "	.36 "

This table shows the average length of the upper mandible to be about 1.00 in.; length of lower mandible, .67 in.; and the width of bill at base .33. Thus it will be seen that in the specimen under consideration, while the width of the base of bill is about normal, the upper mandible is a third of an inch longer than the average, and the lower *nearly three times* the average of these nine specimens.

The illustrations show very well the form of the beak. It will be noticed that the lower mandible makes a half turn, so that what should be its lower surface is, at the tip, the upper; while

slender it is not characteristically sharp pointed. The upper mandible is much more curved than normally, probably from lack of the support of the lower mandible, and in place of the normal sharp, chisel-shaped point, the tip much more resembles that of a snipe's bill.

Where the edges of the mandibles meet at the crossing they are worn to a slight notch.

It would be interesting to know whether this bird subsisted entirely on fruit and seeds, which normally form a large percentage of the food of the species, or whether it was fed by the mate, with insects. Obviously this bill was not adapted to obtaining insects for itself in the usual manner. Unfortunately the bird's stomach when procured was empty. The stomach of the female contained the remains of a dragonfly.

SOME NOVA SCOTIA BIRDS.

BY SPENCER TROTTER.

THE peninsula of Nova Scotia has a ragged coast-line; the land is deeply invaded by the sea through many fiord-like inlets. Four rocky headlands, scarred and worn, alternate with stretches of sand and shingle; boulder-strewn ledges fringe the shores and submarine banks reach far seaward. These sands seem to have impressed the early French explorers who gave the name "Sable" to the southern cape of the peninsula, as well as to a river and also to a group of low islands which lie at some distance off the eastern coast. The edge of the great Atlantic fog bank hovers over these shores, and creeping in with the southerly wind wraps the land in its gloomy mists, often for days at a time.

Back of this coast the voyager along the southern shores sees a land of pointed trees — spruce and balsam fir — rising into a low ridge that is succeeded inland by other similar ridges; a vast, unbroken stretch of evergreen wilderness from shore to shore

across the peninsula, with wide savannas of sphagnum bog, swampy jungles of alder and tamarack, rocky 'barrens' covered by a growth of dwarf blueberry, and here and there, in the hollows between the ridges, the waters of a glacial lake. Many streams head in the bogs on the low divides, their waters dark with the leachings of the peat, and flow west toward the Bay of Fundy and east into the long inlets of the Atlantic. They widen out into lily-covered ponds where the moose wades and feeds, and in places the ancient building of the beaver has blocked their course with meadows. Each spring the salmon, running up from the ocean to spawn, stem the rapids of these rivers and leap their waterfalls, and the angler will find the brook trout from the foam flecked pools of the lower reaches to the head streams far back in the bogs.

Along the shores of the bays are the scattered settlements of a fishing folk, hemmed in landward by the wilderness of evergreens. At one of these — the village of Barrington, just back of Cape Sable Island — I spent the past three summers. It was mid-June when we reached there and lilacs and horsechestnuts were in bloom in the dooryards; a week or so later the air was sweet with the blossoms of the May or English hawthorn, hedges of which had been planted about some of the old houses. This renewal of the spring was very pleasing to us who had come from the early summer of southeastern Pennsylvania. Back in the woods we traced the footprints of spring where the dainty twin flower (*Linnaea*) showed in patches of faint rosy bloom above the moss. The dense thickets of Labrador tea (*Ledum*) and Rhodora, that grew along the boggy waysides, were in blossom, and here and there the chokeberry (*Prunus virginiana*) showed its flowers. In old clearings a profusion of wild strawberries were slowly ripening. The white flowers of the bunchberry (*Cornus canadensis*), the chickweed wintergreen (*Trientalis*), and the two-leaved solomon's seal (*Unifolium*) showed everywhere through the woods. The undergrowth of this region, except where dense forests of balsam fir had excluded sunlight, was for the most part made up of brake (*Pteris*), bayberry (*Myrica*), sheep laurel (*Kalmia angustifolia*), and blueberry bushes (*Vaccinium canadense* and *V. pennsylvanicum*).

During these June days and through the first half of July the land was ringing with bird songs. Along the village highway, from every piece of garden shrubbery, every patch of swamp tangle and thicket came the sweet, homely notes of Song Sparrows, Maryland Yellow-throats, and Summer Warblers. In the woods back of the village the loud, clear whistle of the White-throated Sparrow, calling *Old Sam Peabody-Peabody-Peabody*, struck the keynote of all that was wild and delectable in these solitudes. The song of the Olive-backed Thrush sounded far and near over the tree tops and across clearings, while from all about the woods came the dry, monotonous ditty of the Black-throated Green Warbler. These three songs were the dominant notes of the woodland. This is far from saying that other bird notes were not appreciably present to the attentive ear. The rapid chipping song of the Junco, the tiny tin trumpet of the Canada Nuthatch, the wiry notes of the Hudsonian Chickadee, the screeching calls of wandering Whiskey Jacks, to say nothing of the more familiar notes of Robins, Flickers, and Crows, all these and others fell upon the ear with more or less frequency, but back in the woods from dawn to sunset, you were rarely if ever out of hearing of some Peabody song, some Olive-backed Thrush, or some member of the ubiquitous and tireless tribe of Vireos.

For several reasons I have not attempted to present the birds of this interesting region in the form of a list of species. In the first place I was only a casual observer of the birds during three summers and only an indifferent collector during my third and last sojourn. In the second place the bird fauna of the region is already well known, and a list at the hands of one who took life easy would necessarily be imperfect. What I have tried to do is to record my impressions of the bird life as a whole and what facts fell in my way that related to certain birds in particular.

The shores of Barrington Bay are largely tide-washed beaches of coarse gravel, loose rocks, and boulders covered with brown rock weed. The ebbing tide lays bare extensive 'flats' of eel grass and exposes numerous ledges on which many harbor seals gather to sun themselves. Here and there a bar of sand affords a haunt for the restless flocks of shore birds, while the Herring Gulls and the Terns settle in long rows on these sand strips at

low water, their white breasts glistening in the sunlight. While at Barrington I saw an occasional Black-backed Gull. Some years before (1897) I visited a gull rookery at Cape Split where the waters of the Bay of Fundy spread into the Basin of Minas, a point much farther north than Barrington. Here the 'Coffin-carrier' was quite abundant and nested in the colonies of Herring Gulls on the narrow basaltic edges of the high Cape wall. In the clefts and crannies of this rocky wall many wild roses were in bloom which added a charming effect to the scene. I saw the two species feeding together; a number of gulls would swim in a wide circle, apparently 'rounding up' their prey, while several individuals in the center were actively engaged in diving after the fish. When seemingly satisfied the divers would drop back into the circle of swimmers and others would take their turn at diving and feeding. As far as I have been able to learn this rookery at Cape Split is one of the most southerly breeding places of the great Black-backed Gull, which is at home with the Ice Gulls and Kittiwakes of Baffin Bay.

The terns, or 'Mackerel Gulls,' as they are called by the fishermen, are reasonably abundant in Barrington Bay and probably breed on the shingle and sand beaches of Cape Island. All that I saw appeared to belong to the common species—Wilson's Tern.

The Black Duck was the only species of its kind that bred in this part of Nova Scotia; its favorite nesting haunts were the bogs about lake shores and it was fairly abundant in these situations during the early part of the summer.

One of the most conspicuous inhabitants of the tidal marshes, that formed wide stretches of shore land in many places along the bay, was the Willet. These birds nest on the inland border of the marsh where the swampy undergrowth of woods met the salt grass. I had no success in finding nests and was probably too late in the season. Fully fledged young birds were about early in July; one of these was shot by my son with an air rifle. The old birds were noisy and vigilant until midsummer, when they disappeared from these haunts and in small flocks frequented the mud flats and beaches at low water. Earlier in the summer, as we tramped along the inner edge of the marsh, or skirted its outer edge in a boat, the shrill *pill-will-willet* call was sure to greet us; one or

more individuals would follow, hovering with dangling legs on broad, outstretched wing, close at hand, or perched on some stake or the top of a spruce tree, restless, uneasy, and vociferous until we had gotten well away from the devoted spot.

Certain birds were remarkable for their scarcity, though abundant enough in other sections of the country. I saw but few Chimney Swifts during my three visits; this is undoubtedly due to the fact that most of the chimneys are small and are more or less continually in use during the summer. The Kingbird, save in one instance, was not observed about Barrington until the latter part of the summer when it appeared sparingly in old fields bordering the salt marshes and shores. In the extensive apple orchards about the Basin of Minas I found these birds nesting in 1897 — and they were fairly abundant. The majority of the Kingbird population undoubtedly finds more congenial nesting sites in the agricultural portions of the Province, and the birds appear in the wilder tracts of the southern part only after the breeding season. The same observations are true of the Bobolink. I found this bird nesting abundantly in the lush grass meadows of the Habitant that flows through an old Acadian dyke into the Basin of Minas, but only saw one individual during my three summers' stay at Barrington; a male bird in changing plumage, which I secured on July 30, 1903.

The only flycatcher aside from the Kingbird that I found at Barrington was the Alder Flycatcher (*Empidonax traillii alnorum*). Most of the individuals seen were low down in the dense growth of alders along a sparsely traveled road. The solicitous actions of several of these birds on August 8 betrayed the nearness of young. They kept well out of sight, only occasionally revealing themselves on the edge of the alders and all the while uttering a succession of piping chirps.

A small colony of Rusty Grackles frequented the inner edge of a salt marsh and several individuals were seen on June 17, 1902, in a fresh bog on Barrington River.

I had read Bradford Torrey's account of his hunt after Ravens in the country about Highlands, among the mountains of western North Carolina. I spent two summers at Highlands, and like Mr. Torrey had no success in meeting with this interesting bird. But

fortune changed when I visited Nova Scotia. Under date of July 11, 1901, is the following entry in my note book: "On the beach of a small island [in Barrington Bay] saw four Ravens. They were feeding on the head of a sheep. First heard the 'croak,' then saw the four large birds slowly take wing and flop heavily across the bay toward the further shore." There was no mistaking the ominous croak for the caw of a Crow. At first we thought it was the hoarse bark of a seal on the outer reefs. The Ravens took a direction quite different from that which the Crows took when leaving this small island. The Crows were numerous all about the bay and would fly to the nearest point of the main land, but these Ravens steered for a wild tract of woodland on the farther side of the bay which I afterwards learned was known to be a haunt of the weird bird. During the following summer (1902) I again heard the Raven's croak, several times, from the heavily timbered ridges about the less frequented parts of Shelburne Harbor.

Some northern members of the finch family were at home in this evergreen wilderness; birds which, until my visits to Nova Scotia, I had never seen alive before. One of these was the Pine Grosbeak.

All that I had read and heard from those who had observed the bird during its occasional winter wanderings to more southern latitudes led me to believe that it was almost foolishly tame and unsuspicious. In its breeding grounds, however, I found it just the reverse. The bird was far oftener heard than seen, and always appeared shy. The clear, loud whistling song would sound for long distances over the woods and open savannas. Every little while during the day one or more of these birds would be singing from the top of some tall spruce or fir. After delivering its song for some time the bird, when undisturbed, would suddenly fly down into the dense cover of the woods, but if suspicious of an intruder into its haunts it would frequently fly a long distance from the spot. Like the Goldfinch, the Pine Siskin, the Cross-bills and others of its tribe, the Pine Grosbeak often utters its whistling notes while on the wing. At first I used to think of this song as resembling that of the Goldfinch, only of greater magnitude, but later I came to recognize a quality in it that was

strangely suggestive of the whistle of the Greater Yellowlegs (*Totanus melanoleucus*).

From time to time we would fall in with wandering flocks of Crossbills, the dipping flight and twittering notes on the wing calling to mind the Goldfinch. They appeared to be exceedingly irregular in their movements, disappearing from a locality for days at a time. In the summer of 1901 I saw them first on July 7, and after that more or less frequently during my stay of three months. I have seen those birds feeding in the public road like English Sparrows. The past summer (1903) I did not see or hear Crossbills until the 13th of August. After that they appeared irregularly. Many of the birds were young and a few individuals of the White-winged species were mixed in with the flocks. The birds seemed stupid in their tameness. I fired three or four times into a flock that had settled in a black spruce, the birds busy shelling the cones, without causing any disturbance to the majority, which continued to feed unconcernedly. These flocks are eminently restless, sweeping about over the tree tops with their constantly uttered *tweet-tweet*.

Another finch of exceedingly irregular distribution locally was the Pine Siskin. I frequently heard its canary-like song during the latter part of the summer of 1901 and saw the birds a number of times. In 1902 I saw several individuals on the 18th of June, but never afterwards. Last summer the bird was conspicuous by its absence in the neighborhood of Barrington, and was seen only once, in the early part of September.

The Purple Finch was fairly abundant and its rolling carol was one of the charming songs of these woodlands. At Bedford Basin, near Halifax, N. S., where I spent one summer, this bird frequented the neighborhood of houses, like its western cousin. I have seen two males almost within hand reach of my window trying to outrival each other in singing.

The Acadian Sharp-tailed Finch (*Ammodramus caudacutus subvirgatus*) was an inhabitant of the tidal marshes about Barrington. The bird's notes are like the noise made by sucking in through the teeth, a wet sound that savors of the oozy marsh.

During the first two summers I had my mind set on finding Lincoln's Sparrow. It was not until last summer, however, that I

came upon the bird. My wife and I had wandered far back in a boggy savanna after blueberries — the largest berries I think I have ever seen — and growing weary of picking I took up the gun and began poking along the edge of a dense clump of bushes. Presently a bird showed itself and on being shot proved to be a young male Lincoln's Sparrow. This was on August 29, and a day or two later I secured another young individual in the same locality. Whether the birds breed in this region I am not prepared to say. The two individuals secured, though evidently not long out of the nest, may have been migrants from farther North.

The Red-eyed and Solitary Vireos were the only two species of their kind that I found about Barrington. The Hudsonian Chickadee was common everywhere through the spruce and fir woods and the Black-capped Chickadee was also fairly abundant, though far less so than the Hudsonian species. Golden-crowned Kinglets were frequently heard all through the summer, and Red-breasted Nuthatches were about as common.

Among wood warblers the Black-throated Green, the Maryland Yellow-throat, the Myrtle, and the Black and Yellow were by far the most abundant; the Black and White Warbler and the Redstart were not uncommon. The Chestnut-sided and the Yellow Palm Warblers were also observed. The Oven-bird was oftener heard than seen, and one Wilson's Black-capped Warbler was taken toward the end of the summer. A pair of Nashville Warblers were seen on the edge of an alder and tamarack swamp on the 27th of July, and several others were heard at the same time; one male was secured.

The Cliff Swallows had established colonies under the eaves of a number of the barns in the village. On my first visit I noticed a rather odd departure in the housekeeping habits of the Tree Swallows. A pair of these birds had taken up their residence in a deserted Cliff Swallow's mud house on the lintel over a cottage door. Probably the Cliff Swallows found communal life more to their liking and deserted the solitary dwelling to join some nearby colony.

Young Robins, just out of the nest and not yet able to fly, were found on the 22nd of August, which struck me as rather a late date for Robin fledglings. One cause of these delayed broods is

probably the great abundance of berries in the late summer on which the young birds are fed.

The two species of the *Hylocichla* group of Thrushes which I found in this part of Nova Scotia, presented some interesting facts in local distribution. On the west side of Barrington Bay I found the Olive-backed Thrush the predominant species, while on the eastern side, the Hermit was the only one noticed. I cannot account for this on any other ground than the tendency of individuals of the same species to congregate in the same area. My observations lead me to believe that the Olive-backed Thrush is the shyer of the two. I saw the Hermit a number of times close to dwellings and it seemed to choose the more open woodland tracts, while the Olive-backed Thrush frequented the heavier growth along the edge of clearings. I have approached quite close to the Hermit and listened to his matchless song delivered from a fallen tree or stump in the clearings at noon-day, but the Olive-backed Thrush was always difficult to approach, and so far as my observations go, is a much wilder bird in its habits. Its favorite post when singing is near the top of some tall spruce or fir; the bird diving into the undergrowth on the slightest suspicion of an intruder.

The song of the Olive-backed Thrush seemed to me to be inferior to that of the Hermit; it starts out well but is finished in a series of squeaky notes. My ear for music, however, is uncultivated and I am told by those who have a good ear that the Olive-backed Thrush is really the better performer of the two. The Hermit's song appealed to me as a sustained melody throughout; as though the musician had the ear to appreciate as well as the power to express. Aside from their relative merits as musicians both birds are charming songsters, voicing the very spirit of wilderness solitudes.

The alarm notes of the two species are quite different. The Olive-backed Thrush when disturbed utters a metallic note, short and sharp, often ending in a curious rolling, querulous call. This note is uttered constantly while the bird is fidgeting about in the cover near by. I have several times mistaken these short *pucking* notes of the Olive-backed Thrush for the alarm calls of the Ruffed Grouse to her scattering brood. The alarm note of the Hermit has a Catbird quality about it, lower pitched and less

metallic than that of the Olive-backed Thrush. On the 10th of August I found a Hermit calling to her brood in the undergrowth with a low cluck that was instantly changed to the alarm note when my presence became known.

On the wooded slopes about Shelburne Harbor the Hermit Thrush was apparently abundant. In the hush of the long twilight we would drift far out toward the edge of burnished water, listening to the vesper strains of some late singer that came with infinite sweetness out of the gathering gloom of the farther shore.

THE EXALTATION OF THE SUBSPECIES.

BY JONATHAN DWIGHT, JR., M. D.

WHATEVER may be the intrinsic worth of the subspecies, signs are not wanting, at the present time, that its value, especially in the domain of ornithology, is impaired by the undue prominence which it has attained. Some of us hold it so close to the eye that all fields beyond are obscured and the one near object becomes not a part of ornithology but the aim and end of all our research. Our efforts are so one-sided that minute variations of dimension or color are magnified by their very proximity until they afford foothold for the rising flood of names that threatens to undermine the very foundations of trinomial nomenclature. It seems to be forgotten that the subspecies is only a *convenient* recognition of geographical variation within the limits of the species. Its rise began when the distribution of the species of many parts of the globe had been thoroughly determined, and systematists welcomed it as a new and useful outlet for activity. Since that time down to the present, the dividing and re-dividing of old species into geographical races or subspecies has gone on apace — not as a matter of making two blades of grass grow where one grew before but of splitting the one blade.

The luxuriant growth of the subspecies, while unquestionably

due to numerous and complex causes, depends, in a large degree, upon man's natural and proper desire to bestow names upon the objects about him. Unfortunately the giving of a name, be it ever so scientific, is hedged in by no prerequisites of scientific training, and many have been the blunders committed through ignorance and haste. We are, after all, only human, but one of the greatest misfortunes that can befall is when a dim conception of evolution leads us to confuse plasticity of a form to its environment with plasticity in our own brain. We must beware lest we name that which exists only in our expectant mind. A subspecies potential is a fact, a subspecies named, an opinion, for in giving a name we express an opinion which may or may not fit the fact. As a working hypothesis, it is convenient to consider the subspecies as an incipient species, but to name every degree of incipency is pushing matters to a point where the name, by overshadowing the fact, ceases to be the convenient handle for which it is primarily intended. The tail begins to wag the dog, and, in the eyes of some, it really seems to be more important than the dog.

Another, but less potent cause for the rise of the subspecies is found in the unnecessary prominence accorded it in our books and other publications. Wherever we turn we find it, to all appearances, on equal terms with the full species. It is clothed in the same type, while descriptions, measurements, synonymy and other matters are displayed independently as if every name were of equal value. No wonder the impression is created that the subspecies is quite as important as the species and deserving of the same treatment. We forget that, as names multiply, they lose in definiteness of meaning, and that the standard by which races are measured falls in direct proportion to the number of names resulting from new campaigns over old ground. Ornithology, in North America at least, is suffering from too many campaigns.

But, the mind of the young ornithologist is strongly influenced by what his elders do, and if they make much of the subspecies he is likely to do the same. Hence, if we expend so much effort in seeking new lines of geographical cleavage, it is not inconceivable that our successors may reduce our splinters to sawdust and bestow a name upon each and every grain. It is to be hoped,

however, that the limits of the human eye and of the vernier scale will not be the only goal of the ornithologist, for true science does not receive much uplifting from the mere renaming of a few handfuls of skin and feathers. How well revision and renaming have worked in the past, when species were the units, is shown by the long array of synonyms that burden many a page. Synonymy might fittingly be called the science of the blunders of our predecessors, and we ourselves shall need deliverance from an intolerable load of names unless our fragile subspecific refinements are woven of stronger threads. We discover and name trivialities because we like to do it, and new names loom very large even if they mean little. We confuse nomenclature and ornithology, forgetful that names which should be the tools of the ornithologist may easily become the playthings of the systematist. If the subspecies be relegated to its proper place and held in proper perspective, we shall neither flounder in a flood of names nor fail to perceive the opportunities which lie open before us. There is more serious work on hand than the naming of subspecies if the advance of ornithology is to keep pace with that of kindred sciences.

YOSEMITE VALLEY BIRDS.

BY O. WIDMANN.

To demonstrate the efficacy of bird protection by exclusion of firearms the Yosemite Valley is an excellent example. During a short stay of three and a half days, from noon of May 21 to early morning of May 25, 1903, fifty-seven species were noticed. The valley is seven miles long by a width of one half to one mile, but only a part of this area in the vicinity of the so-called village was subjected to a close scrutiny, and no attempt was made to investigate the bird fauna of the surrounding higher regions.

Discovered in 1851, the valley with its enclosing peaks was granted by Congress in 1864 to the State of California on condition that it should be held as a "State Park for public use, resort

and recreation for all times." This carries with it the prohibition of introducing firearms. From November till April shootists are kept out by the deep snows, which make access to the valley difficult. When the season opens in spring a detachment of U. S. cavalry assists the State guardian in the work of policing the park, and the great number of birds speaks well for their efficiency. It is not only the comparatively large number of species that surprises the visitor, but still more so the great number of individuals of many of these species, and their extraordinary tameness. From the veranda, there called piazza, of the Sentinel Hotel annex I could easily count from one to two dozen species any time of the day, and among them such woodland birds as the Pileated Woodpecker and Hermit Thrush. The Ruby-crowned Kinglet had its bulky nest on the very next tree, an old incense-cedar (*Libocedrus decurrens*), not more than thirty-five feet from the veranda and on the side of the tree nearest to the house.

Not far from it a pair of Brown Creepers went in and out feeding young in a nest only six feet from the ground under the bark of another old *Libocedrus*. At one time a Green Towhee, a Spurred Towhee, a White-crowned Sparrow and a Thick-billed Fox Sparrow were feeding peacefully together on one square yard of ground under the veranda, while half a dozen Juncos and Chippies were also hopping about.

Part of this richness of the ornis may be attributable to weather conditions, in so far as some of the birds may have been driven down from the neighboring peaks by the snow which fell on the day of our arrival, May 21, 1903. In fact, all forenoon, from seven, when we started in the open stage from Wawona, till our arrival at the Sentinel Hotel at noon, snow fell continually, sometimes at a lively rate, and mixed with hail on the highest point of the stage route, said to be seven thousand feet above the sea. The valley itself is only four thousand feet high, but the enclosing peaks average four thousand feet higher and form with their nearly vertical walls and magnificent waterfalls the sublime grandeur for which the valley is deservedly world-renowned.

But while the lofty peaks and granite domes, the spiry pinnacles and roaring cataracts make it grand and glorious beyond description, it is the rich organic life, the great variety of beautiful forms

of trees and flowers, and the unusual tameness of the many birds, which make this paradisaic spot particularly dear to our heart. Those who expect to see only cold majestic grandeur are most agreeably surprised to find in the heart of the Sierra such a gentle garden spot, full of mellow sunshine, benevolent quiet, and blissful joy.

It took only one hour of sunshine to melt most of the snow in the valley on the afternoon of May 21, and though the nights during our stay were frosty, the days were mild and pleasant with a maximum temperature of 60° in the shade.

LIST OF BIRDS OBSERVED IN YOSEMITE VALLEY.

1. *Actitis macularia*. SPOTTED SANDPIPER.—Though the swift-running water of Merced River was of icy coldness, four Spotted Sandpipers were busily engaged feeding at favorable spots along its banks.
2. *Oreortyx pictus plumiferus*. MOUNTAIN PARTRIDGE.—Seen only in two places, but feathers found on the ground and some interwoven in birds' nests show that they may be more numerous than it seems.
3. *Columba fasciata*. BAND-TAILED PIGEON.—Daily seen on wing or resting in high trees (yellow pines) in parties of 2 to 5. A flock of about 30 were disturbed at their roost near the Bridal Falls early on May 25.
4. *Zenaidura macroura*. MOURNING DOVE.—Only one seen, May 21.
5. *Elanus leucurus*. WHITE-TAILED KITE.—About 9 A. M. on May 24 a great commotion was heard in a clump of trees near the Yosemite Falls, and presently a White-tailed Kite, chased by two Vireos, flew out and across an opening into a tall yellow pine.
6. *Accipiter velox rufilatus*. WESTERN SHARP-SHINNED HAWK.—One (female) going slowly over the valley, 6.15 P. M. May 23.
7. *Falco sparverius deserticolus*. DESERT SPARROW HAWK.—Twice seen May 23, and again on the 25th.
8. *Dryobates villosus hyloscopus*. CABANIS WOODPECKER.—Two males seen May 22 and 24.
9. *Dryobates pubescens turati*. WILLOW WOODPECKER.—Male and female in two localities along Merced River, May 23.
10. *Xenopicus albolarvatus*. WHITE-HEADED WOODPECKER.—Only one seen in the valley near Camp Currie, but several crossed our way between the Yosemite and Wawona on the 25th.
11. *Ceophloeus pileatus abieticola*. NORTHERN PILEATED WOODPECKER.—Males and females seen in different localities.
12. *Melanerpes formicivorus bairdi*. CALIFORNIA WOODPECKER.—One pair stationed not far from hotel.

13. *Colaptes cafer collaris*. RED-SHAFTED FLICKER.—Often heard; several present but rather shy.

14. *Aëronautes melanoleucus*. WHITE-THROATED SWIFT.—Only two seen, flying together over valley, May 24.

15. *Stellula caliope*. CALIOPE HUMMINGBIRD.—Quite numerous in the valley; conspicuous and excited; on two occasions males went straight up some sixty feet, there remained suspended at the same place for half a minute, dropped down and rose again to repeat the performance; also seen to dart up from prominent station into the air, catch an insect and return to same perch like a flycatcher.

16. *Sayornis nigricans semiatra*. BLACK PHOEBE.—Only once met with, near Pohono Bridge.

17. *Contopus richardsoni richardsoni*. WESTERN WOOD PEWEE.—One of the common sounds heard in the valley was the note of this bird, perched high up in trees; while feeding they were often low down near the ground. A nest in a California black oak was nearly fifty feet above the ground.

18. *Empidonax difficilis*. WESTERN FLYCATCHER.—Among several *Empidonaces* seen, this is the only one identified with certainty, while among the others were probably Wright's Flycatcher.

19. *Empidonax wrighti*. WRIGHT'S FLYCATCHER.—Identification open to doubt.

20. *Cyanocitta stelleri frontalis*. BLUE-FRONTED JAY.—Pretty common, but rather quiet and retiring.

21. *Scolecophagus cyanocephalus*. BREWER BLACKBIRD.—A small troop was always on the meadow near the village.

22. *Coccothraustes vespertinus montanus*. WESTERN EVENING GROS-BEAK.—One pair near hotel.

23. *Carpodacus purpureus californicus*. CALIFORNIA PURPLE FINCH.

24. *Carpodacus cassini*. CASSIN PURPLE FINCH.

25. *Carpodacus mexicanus frontalis*. HOUSE FINCH.

This being my first acquaintance with the western *Carpodaci* the identification of the different species gave me considerable trouble and my notes on this genus are somewhat clouded, but it appeared to me that all three species were present. On the 24th a female House Finch was busily engaged building a nest in a maple near the hotel, while the mate indulged in song flights.

26. *Astragalinus tristis salicamans*. WILLOW GOLDFINCH.—Only once seen, May 21.

27. *Astragalinus psaltria psaltria*. ARKANSAS GOLDFINCH.—Four together on the 21st.

28. *Spinus pinus*. PINE SISKIN.—Several pairs in immediate vicinity of the hotel doing much singing and often hopping on the ground in the street, so tame that they could almost be touched with the foot.

29. *Zonotrichia leucophrys leucophrys*. WHITE-CROWNED SPARROW.—Single individuals in half a dozen places, often in song, which does not at all differ from that heard in the Mississippi Valley.

30. *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW.—Like the Robin, generally distributed and numerous.

31. *Junco hyemalis thurberi*. SIERRA JUNCO.—Very numerous; always a few together, sometimes as many as 20 to 30 on the ground feeding in openings and on meadows.

32. *Passerella iliaca megarhyncha*. THICK-BILLED FOX SPARROW.—Only once seen, May 21.

33. *Pipilo maculatus megalonyx*. SPURRED TOWHEE.—Apparently a common breeder; several males singing all day at their stands.

34. *Oreospiza chlorura*. GREEN-TAILED TOWHEE.—In 6 or 7 places, a diligent musician whose song reminded me strongly of *Chondestes grammacus*.

35. *Zamelodia melanocephala*. BLACK-HEADED GROSBEAK.—The most prominent of all songsters in the valley, where at least fifty individuals were present, and females as well as males everywhere in sight; two males found singing on nests less than eight feet from ground.

36. *Cyanospiza amcena*. LAZULI FINCH.—Three pairs were located; song differed much individually; one's song was remarkably like that of the Indigo Bird, another's more like a Goldfinch's.

37. *Piranga ludoviciana*. WESTERN TANAGER.—Quite abundant after the 22d; not only old males as before, but females and young of last year of different patterns of coloration in small troops, singing and mating.

38. *Tachycineta lepida*. VIOLET-GREEN SWALLOW.—When after the frosty mornings the sun began to warm the valley half a dozen swallows were hunting over the meadow behind the village or resting on the fence wires for an hour or two. On the afternoon of the 24th a large number of swallows was seen, perhaps fifteen hundred feet above the valley, hunting on the sunny side between Union and Glacier Points.

39. *Stelgidopteryx serripennis*. ROUGH-WINGED SWALLOW.—Two (probably a pair) hunting with *Tachycineta* over meadow, May 22.

40. *Vireo gilvus swainsoni*. WESTERN WARBLING VIREO.—One of the common songsters, heard everywhere and often seen.

41. *Vireo solitarius cassini*. CASSIN VIREO.—Almost as numerous as the Warbling Vireo and nearly as musical; their pleasing song one of the common sounds in the valley and the musicians themselves easily detected.

42. *Helminthophila rubricapilla gutturalis*. CALAVERAS WARBLER.—With the Vireos and Yellow Warbler, one of the common songsters.

43. *Dendroica æstiva morcomi*. WESTERN YELLOW WARBLER.—Generally distributed and an industrious songster.

44. *Dendroica auduboni*. AUDUBON WARBLER.—This is the only warbler yet in troops of twenty and more, while single individuals and pairs were scattered all over the valley. Two individuals were noticed in which it required a good light to discover yellow traces on the white throat, and thus could easily have been mistaken for *D. coronata*.

45. *Dendroica nigrescens*. BLACK-THROATED GRAY WARBLER.—

Quite a number of this beautiful warbler were at home in the valley; they were often seen, and their song, which varies much, was freely given.

46. *Dendroica occidentalis*. HERMIT WARBLER. — Only in two localities; a singing male and a female.

47. *Geothlypis tolmiei*. TOLMIE WARBLER. — The interesting song of this warbler was heard at several places along Merced River and it did not take long to see the bird itself, as it was not at all shy; sometimes their sharp alarm note betrayed them.

48. *Wilsonia pusilla pileolata*. PILEOLATED WARBLER. — One of the birds often seen and heard; their song contributed not a little to the general concert of the morning hours.

49. *Cinclus mexicanus*. AMERICAN DIPPER. — Returning from a visit to the beautiful Cascade Falls at the lower end of the valley Dr. J. A. Allen saw a dipper fly across Merced River and immediately thereafter Mrs. Allen discovered the mossy nest on a big boulder in the river. No others were noticed.

50. *Catherpes mexicanus punctulatus*. DOTTED CAÑON WREN. — At the foot of the Yosemite Falls, where giant boulders are piled mountain high, a Cañon Wren had his home and gave a performance in play and song; another was heard on Coulterville Road near Pohona bridge.

51. *Certhia familiaris zelotes*. SIERRA CREEPER. — Often heard and seen. Feeding young in nest under bark of Libocedrus.

52. *Parus gambeli*. MOUNTAIN CHICKADEE. — Generally distributed, but rather quiet.

53. *Regulus satrapa olivaceus*. WESTERN GOLDEN-CROWNED KINGLET. — In two localities; one at the foot of Eagle Peak had so much black on its forehead, through and behind the eye, that it reminded me of pictures of Audubon's *cuvieri*.

54. *Regulus calendula calendula*. RUBY-CROWNED KINGLET. — A breeder, and one of the most industrious songsters; its song louder, but less sweet, than in the Mississippi Valley. From a distance some of its notes resembled the whistle of the Tufted Tit.

55. *Hylocichla aonalaschkæ sequoiensis*. SIERRA HERMIT THRUSH. — Numerous and singing toward evening. An imitation of its peculiar whistling call-note never failed to attract one or more individuals, who came within a few yards and remained there in plain view for a long while.

56. *Merula migratoria propinqua*. WESTERN ROBIN. — One of the most conspicuous birds, not only near the village, but also in the forest far from human habitations.

57. *Sialia arctica*. MOUNTAIN BLUEBIRD. — At one place only; near village on way to Mirror Lake.

In Wawona, where we made a halt of one day and from where we visited the famous Mariposa Grove of Big Trees, the following

species were noted, some of them not found in the Yosemite Valley. Wawona is twenty-six miles south of the Yosemite on the south branch of Merced River in the high forest region. It lies in the National Park and would be an excellent place for birdlovers to stay a week or more; it has a very good hotel, in fact a better one than the Sentinel Hotel in the Yosemite Valley.

BIRDS OBSERVED MAY 20 AT WAWONA.¹

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|---|--|
| 1. <i>Zenaidura macroura</i> , one. | 15. <i>Zonotrichia leucophrys</i> , male in song. |
| *2. <i>Ceryle alcyon</i> , one. | 16. <i>Spizella socialis arizonæ</i> , several. |
| 3. <i>Ceophloeus pileatus abieticola</i> , one. | *17. <i>Melospiza cinerea heermanni</i> , male in song. |
| *4. * <i>Sphyrapicus varius daggetti</i> , male. | *18. <i>Melospiza lincolni</i> , male in song. |
| 5. <i>Colaptes cafer collaris</i> , one. | 19. <i>Zamelodia melanocephala</i> , several in song; also female. |
| 6. <i>Sayornis nigricans semiatra</i> , two. | 20. <i>Vireo gilvus swainsoni</i> , male in song. |
| *7. <i>Contopus borealis</i> , one. (Also at Maimi Mill.) | 21. <i>Helminthophila rubricapilla gutturalis</i> , male singing. |
| 8. <i>Contopus richardsoni</i> , several. | 22. <i>Dendroica æstiva morcomi</i> , male singing. |
| 9. <i>Cyanocitta stelleri frontalis</i> , several. | 23. <i>Dendroica auduboni</i> , male. |
| 10. <i>Scolecophagus cyanocephalus</i> , several. | *24. <i>Troglodytes ædon aztecus</i> , male in song. |
| 11. <i>Carpodacus cassinii</i> , 2 troops of 10 and 12 birds. | 25. <i>Certhia familiaris zelotes</i> , singing. |
| 12. <i>Carpodacus mexicanus frontalis</i> , one. | 26. <i>Merula migratoria propinqua</i> , several. |
| 13. <i>Astragalinus psaltria</i> , one. | |
| *14. <i>Ammodramus savanna alaudinus</i> , two. | |

BIRDS SEEN IN MARIPOSA GROVE,² MAY 20.

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|--|--|
| *1. <i>Empidonax hammondi</i> , one. | 5. <i>Dendroica occidentalis</i> , male in song. |
| 2. <i>Junco hyemalis thurberi</i> , a few. | 6. <i>Parus gambeli</i> , one. |
| 3. <i>Vireo solitarius cassinii</i> , one in song. | 7. <i>Regulus calendula</i> , singing. |
| 4. <i>Dendroica auduboni</i> , male and female. | 8. <i>Hylocichla sequoiensis</i> , very tame. |
| | 9. <i>Merula migr. propinqua</i> , one. |

¹Those marked * not seen in Yosemite.²Eight miles southeast of Wawona.

In descending from Wawona into the San Joaquin basin, by way of Awahnee, the change in the flora and fauna from the forest region through the arid chaparral into the cultivated land at the base of the foothills is extremely interesting and would be well worth a detailed description, but when traveling in the stage one can only enjoy the most salient points, and much is lost through unnecessary haste on the part of the driver.

Half way between Wawona and Raymond there lies in the valley of the Fresno River, Awahnee, one of the stage company's stopping stations, with a good hotel. Situated near the chaparral region, but itself surrounded by cultivated fields and woodlands, it seems to be a fine place for a few days of birding, but unfortunately our time-table allowed only a short hour for dinner, May 25. On the barn of the hotel was a lively colony of *Petrochelidon lunifrons*, with fifty finished nests. A Screech owl, *Megascops asio bendirei*, flew up from the ground and disappeared in a treehole by the wayside.

In the brushy foothills a number of birds not seen in the high forest region were more or less common, among them:

- Lophortyx californicus valicolus*. VALLEY PARTRIDGE. Very common.
Buteo borealis calurus. WESTERN REDTAIL. Three on wing.
Tyrannus verticalis. ARKANSAS FLYCATCHER. Several.
Myiarchus cinerascens. ASH-THROATED FLYCATCHER. Several.
Aphelocoma californica. CALIFORNIA JAY. Very common.
Melanerpes formicivorus bairdii. CALIFORNIA WOODPECKER. Very common.
Progne subis. Several at Grub Gulch and along Fresno River.
Pipilo crissalis. CALIFORNIA TOWHEE. A few.
Toxostoma redivivum. CALIFORNIA THRASHER. A few.

AT RAYMOND, MAY 25, 6. P. M.

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|--------------------------------|---|----------|
| <i>Icterus bullocki</i> . | } | In song. |
| <i>Sturnella neglecta</i> . | | |
| <i>Astragalinus lawrenci</i> . | | |

TWENTY-FIRST CONGRESS OF THE AMERICAN
ORNITHOLOGISTS' UNION.

THE TWENTY-FIRST CONGRESS of the American Ornithologists' Union convened in Philadelphia, Pa., Monday evening, November 16, 1903. The business meeting was held in the Council Room, and the public sessions, commencing Tuesday, November 17, and lasting three days, were held in the lecture hall of the Academy of Natural Sciences.

BUSINESS SESSION.—The meeting was called to order by the President, Dr. C. Hart Merriam. Nineteen Fellows were present. The Secretary stated that at the opening of the present Congress the membership of the Union numbered 775, constituted as follows: Fellows, 47; Honorary Fellows, 18; Corresponding Fellows, 61; Members, 63; Associates, 586.

During the year the Union lost sixty members, eight by death, seventeen by resignation, and thirty-five for non-payment of dues. The deceased members include one Fellow, one Corresponding Fellow, one Member, and five Associates, as follows: Thomas McIlwraith,¹ a Fellow, and one of the Founders of the Union, who died in Hamilton, Ontario, January 31, 1903, in his 79th year; Dr. Gustav F. R. von Radde,² a Corresponding Fellow, who died early in 1903 at Tiflis, Russia, in the 72d year of his age; John N. Clark,³ a Member, who died in Saybrook, Conn., January 13, 1903, at the age of 72; and the following Associates: Ludwig Kumlien,⁴ who died in Milton, Wis., Dec. 4, 1902, in his 50th year; Edward S. Waters,⁵ who died at Holyoke, Mass., Dec. 27, 1902, aged 71; Thomas E. Slevin,⁶ who died in San Francisco, Calif., Dec. 23, 1902, in his 32d year; George H. Ready,⁷ who

¹ For an obituary notice, see Auk, XX, p. 242; also Memorial Address in the present number.

² For an obituary notice, see *Ibid.*, XX, pp. 458, 459.

³ For an obituary notice, see *Ibid.*, XX, pp. 242, 243.

⁴ For an obituary notice, see *Ibid.*, XX, pp. 93, 94.

⁵ For an obituary notice, see *Ibid.*, XX, p. 243.

⁶ For an obituary notice, see *Ibid.*, XX, pp. 326, 327.

⁷ For an obituary notice, see *Ibid.*, XX, p. 327.

died in Santa Cruz, Calif., March 20, 1903, in his 45th year; and Prof. Wilber C. Knight,¹ who died at Laramie, Wyoming, July 28, 1903, in the 45th year of his age.

The report of the Treasurer showed the finances of the Union to be in a satisfactory condition, much better than ever before.

Charles B. Cory was elected President; Charles F. Batchelder and E. W. Nelson, Vice-Presidents; John H. Sage, Secretary; Jonathan Dwight, Jr., Treasurer; Frank M. Chapman, Ruthven Deane, Witmer Stone, A. K. Fisher, Thos. S. Roberts, William Dutcher, and C. W. Richmond, members of the Council.

Dr. Samuel W. Woodhouse, of Philadelphia, Pa.; Prof. Dean C. Worcester, of Manila, P. I.; Dr. E. C. Hellmayr, of Munich; Dr. Emil A. Goeldi, of Pará, Brazil; Dr. Peter Sucshkin, of Moscow, and Dr. Herluf Winge, of Copenhagen, were elected Corresponding Fellows. One hundred and four Associates were elected, and the following eight persons were elected to the class of Members, namely: Prof. Erwin H. Barbour, of Lincoln, Nebraska; C. William Beebe, of New York City; Edward H. Forbush, of Wareham, Mass.; Benjamin T. Gault, of Glen Ellyn, Ill.; Geo. Spencer Morris, of Philadelphia, Pa.; Robert E. Snodgrass, of Stanford University, Calif.; Dr. Reuben M. Strong, of Chicago, Ill.; and Dr. Robert H. Wolcott, of Lincoln, Nebraska.

Drs. Allen, Dwight, Merriam and Richmond, and Messrs. Brewster, Ridgway and Stone, were reelected 'Committee on Classification and Nomenclature of North American Birds.'

PUBLIC SESSION. *First Day.*—The meeting was called to order by Vice-President Batchelder. The papers read during the morning session were as follows:

A Memorial Address on Thomas McIlwraith, a Fellow, by Dr. A. K. Fisher.

'Notes on the Bird Colonies of the California and Oregon Coasts,' by Dr. T. S. Palmer.

'New Bird Studies in Old Delaware,' by Samuel N. Rhoads and C. J. Pennock.

'Notes on the Protected Birds on the Maine Coast, with Relation to Certain Economic Questions,' by Arthur H. Norton. Read, in the absence of the author, by Mr. Dutcher.

¹ For an obituary notice, see *Auk.*, XX, pp. 457, 458.

'Two Neglected Ornithologists — John K. Townsend and William Gambel,' by Mr. Witmer Stone. Remarks followed by Dr. Merriam and the Chair.

The papers of the afternoon session, all illustrated by lantern slides, were :

'Exhibition of Lantern Slides of Young Raptorial Birds, photographed by Thomas H. Jackson, near West Chester, Pa.' Explained by Mr. Stone.

'Views of Farallone Bird Life,' by Frank M. Chapman.

'The Bird Rookeries of Cape Sable and the Florida Keys,' by the Rev. Herbert K. Job.

'A Winter Trip in Mexico,' by E. W. Nelson.

Second Day.—The meeting was called to order by Vice-President Batchelder. The papers read during the morning session were :

'The Æsthetic Sense in Birds,' by Henry Oldys.

'Nesting Habits of the Whip-poor-will,' by Miss Mary Mann Miller. Remarks followed by Messrs. Beebe and Job and Mrs. Styer.

'Some Nova Scotia Birds,' by Dr. Spencer Trotter. Remarks followed by Prof. Cooke, Drs. Dwight and Merriam, and Messrs. Todd, Rhoads, and Fleming.

'Some Variations among North American Thrushes,' by Dr. Jonathan Dwight, Jr.

'Warbler Migration in the Spring of 1903,' by Prof. W. W. Cooke. Remarks followed by Messrs. Baily, Rhoads, Brewster, Job, Trotter, Powell, Dutcher, and the Chair.

'A Reply to Recent Strictures on American Biologists,' by Dr. Leonhard Stejneger.

The following papers — all illustrated by lantern slides — were given at the afternoon session, viz.: 'Variations in the Speed of Migration,' by Prof. W. W. Cooke.

'An Ornithological Excursion to the Pacific,' by Frank M. Chapman.

'Bird Life on Laysan Island,' by Walter K. Fisher (presented, in the absence of the author, by Dr. A. K. Fisher).

'Ten Days in North Dakota,' by Wm. L. Baily.

Third Day.—The meeting was called to order by Vice-President Nelson. Before proceeding to the reading of papers resolu-

tions were adopted thanking the Academy of Natural Sciences for the use of a hall for a place of meeting for the Union, and for other courtesies extended; to the Local Committee and other Philadelphia ornithologists for the cordial welcome and most generous hospitality shown visiting members and friends of the Union, and to the Zoölogical Society of Philadelphia for its kind invitation to visit the Gardens of the Society.

The following resolution of thanks to Dr. J. A. Allen for twenty years' services as Editor of 'The Auk' was passed:

"WHEREAS, for a period of twenty years Dr. J. A. Allen has performed the laborious duties of Editor of 'The Auk,' the official publication of the American Ornithologists' Union; and

"WHEREAS, by reason of his ability and training as an Editor, and his high standing as an ornithologist, he has brought 'The Auk' to the front rank among the ornithological publications of the world; be it

"RESOLVED, that the American Ornithologists' Union hereby extends to Dr. Allen its appreciative and grateful thanks for his services."

A resolution of thanks to William Dutcher, for many years Treasurer of the Union, was also adopted:

"RESOLVED, that the thanks of the American Ornithologists' Union be extended to Mr. William Dutcher for his long and arduous services as Treasurer."

These resolutions will be engrossed and presented, respectively, to Dr. Allen and Mr. Dutcher.

The following papers were read:

'The Exaltation of the Subspecies,' by Dr. Jonathan Dwight, Jr. Remarks followed by Drs. Merriam and Stejneger, Messrs. Brewster and Stone, and the Chair.

'Bird Life at Cape Charles, Va.,' by Geo. Spencer Morris.

'The Origin of Migration,' by P. A. Tavernier. In the absence of the author it was read by Dr. Palmer. Remarks followed by Dr. Trotter.

'Yosemite Valley Birds,' by Otto Widmann. Read by Dr. Dwight in the absence of the author. Remarks followed by Dr. Merriam.

The fifth paper 'Mortality among Young Birds due to Exces-

sive Rains,' by B. S. Bowdish. Read by Mr. Stone, in the absence of the author. Remarks followed by Messrs. Stone, Coggins and Bailly.

The papers of the afternoon session were: 'Some Birds of Northern Chihuahua,' by Dr. W. E. Hughes.

'Collecting Permits: Their History, Objects and Restrictions,' by Dr. T. S. Palmer.

The following papers were read by title:

'Nesting Habits of Florida Herons,' by A. C. Bent.

'The Spring Migration of 1903 at Rochester, N. Y.,' by E. H. Eaton.

'San Clemente Island and its Birds,' by Geo. F. Breninger.

'A Contribution to the Natural History of the Cuckoo,' by Dr. M. R. Levenson.

As the concluding paper of the day, Mr. Wm. Dutcher, Chairman of the Committee on 'Protection of North American Birds,' presented the report of his Committee for the previous year.

The next meeting of the Union will be held in Cambridge, Mass., commencing November 28, 1904.

The Congress was most successful, the papers presented being of a high order, and the attendance of members larger than ever before.

JNO. H. SAGE,
Secretary.

GENERAL NOTES.

White-winged Scoter in Colorado.—The undersigned takes this chance to record the occurrence of another White-winged Scoter (*Oidemia deglandi*) in Colorado. The bird, a mature female, was given to the writer by E. L. Bostwick of Denver, who secured the specimen Oct. 11, 1903, at Loveland, Colo. This makes the ninth record, so far as the writer knows, for Colorado. — W. H. BERGTOLD, *Denver, Colo.*

Occurrence of the Knot (*Tringa canutus*) at San Diego, California.—Three specimens of the Knot, taken by Mr. H. W. Marsden, have recently

come into my possession, and as the species is of comparative rarity on the Pacific coast, its occurrence at San Diego seems worthy of record. The three birds are in juvenal plumage, with a few feathers of the first winter dress beginning to appear, and were obtained, a male and a female October 7, and a female October 9, 1903. — JONATHAN DWIGHT, JR., M.D., *New York City*.

A Sanderling with Hind Toes. — On September 11, 1903, I obtained from a gunner at Ipswich, Mass., a Sanderling (*Calidris arenaria*) which had rudimentary hind toes. The bird was one of eleven shot in my presence out of a passing flock. None of the other birds secured had this peculiarity. The hind toes are only about .05 of an inch in length and have no claws but they were very noticeable in the fresh bird and are equally so in the skin, which is now in the collection of Dr. Charles W. Townsend of Boston. I suppose this to be a case of reversion, as the ancestors of the Sanderling were doubtless four-toed sandpipers. — FRANCIS H. ALLEN, *Boston, Mass.*

Black-bellied Plover and Hudsonian Godwit on Long Island, N. Y. — On July 1, 1903, while walking along the beach at Quogue, Long Island, I shot a young Black-bellied Plover (*Charadrius squatarola*). It was quite tame but in good condition. None have been taken here before July 20, and they do not occur regularly until later.

On August 31, a flight of Hudsonian Godwits (*Limosa hemastica*) occurred. Many gunners shot a dozen or more. Such a flight of these rare birds has not taken place within the memory of the oldest gunners, and they will probably not come again after their warm reception. — T. W. KOBBE, *New York City*.

The Ani in Florida. — Mr. Thomas Barbour has sent me an Ani (*Crotophaga ani*) which he shot in Brevard County, Fla., during the winter of 1901. The bird was taken in either February, March or April; the exact date was lost. — REGINALD HEBER HOWE, JR., *Concord, Mass.*

The Pileated Woodpecker in the District of Columbia. — On the 21st of November, 1903, while hunting in a piece of woods adjacent to Mt. Pleasant, a local name for a suburb lying just north of Washington, Mr. H. J. Saers of this city secured a fine male specimen of *Ceophlæus pileatus*. Subsequently it was learned through Mr. H. C. Oberholser that Mr. F. H. Kent of the Biological Survey had seen an individual of this species, presumably the same bird, in approximately the same locality, on the 8th of last August.

The capture of this wild, forest-loving bird so close to Washington is a matter of considerable interest to local ornithologists, as it is somewhat doubtful that this species has actually occurred within the limits of the District, during the last forty-five years. Drs. Coues and Prentiss, in

'Avifauna Columbiana,' state (Bull. U. S. Nat. Mus. No. 26, 1883, p. 81): "It was rare in 1862, having already responded . . . to the encroachment of the city upon its favorite haunts. . . . The only one we remember to have ever seen alive was in a piece of heavy timber known as 'Gales' Woods'; but that was about 1857 or 1858." They state further: "Mr. Shoemaker informs us that one was seen a year or two ago," which was in 1881 or 1882. As there was no locality given with this last record, it is somewhat difficult to say whether the bird recorded was seen within the District or in the surrounding country, as the authors in listing the rarer species, frequently gave records for the 'vicinity' as well. However, giving the record the benefit of the doubt, it is quite safe to assert that until the bird forming the subject of this note made its appearance, the species had not been observed for the past 21 or 22 years.—GEORGE W. H. SOELNER, *Washington, D. C.*

Empidonax griseus Brewst. = *E. canescens* Salv. & Godm. — In the 'Biologia,' II, p. 79, March, 1889, Salvin and Godman described *Empidonax canescens* from specimens taken at Mexicalcingo and various other places near the City of Mexico.

In 'The Auk' for April of the same year (p. 87), Mr. Brewster described *Empidonax griseus* from specimens taken at La Paz, Lower California.

The Biological Survey Collection contains specimens of *canescens* from near the type locality in the Valley of Mexico which have recently been compared with the type by Dr. Sharpe and his assistant, Mr. Chubb, of the British Museum, and pronounced to be identical with it.

Before these specimens were sent for comparison with the type of *canescens* they were compared by Mr. Brewster with the type of *griseus* and pronounced to be indistinguishable. It follows, therefore, that *griseus* and *canescens* apply to the same bird, and the latter name has a month's priority.

The range of *E. canescens* extends from southern Puebla through the Valley of Mexico northwesterly to southern Sonora, and from Cape St. Lucas north through Lower California into southern California.—E. W. NELSON, *Biological Survey, Washington D. C.*

A Preoccupied Generic Name. — Mr. G. E. Shelley in Vol. III of his 'Birds of Africa' (London, 1902) founds a new genus *Botha* (to Louis Botha) for a new species of Lark from the Orange River Colony, — *Botha difficilis*. Nearly a century ago Rafinesque (Caratteri di Alcuni Nuovi Generi, etc., 1810, p. 23) proposed the generic name *Bothus* for flounders allied to the European turbot (*Pleuronectes*). As these two terms (*Bothus* and *Botha*) are practically almost identical, it would be better to drop *Botha* and take for this Lark another generic name, for instance *Dewetia* (to Christian De Wet, another gallant Oranjestaat chief). — S. A. BUTURLIN, *Wesenberg, Esthonia, Russia.*

Extension of the Breeding Range of the Prairie Horned Lark (*Otocoris alpestris praticola*) to the Eastern Coast.— On August 9, 1903, at Ipswich, Mass., Mr. Ralph Hoffmann saw two adults of this species with a fully grown young bird. Two days later, on August 11, Mr. Thomas L. Bradlee shot, at the same place, two young birds, both females, and saw three other individuals. They were near a road in open fields not far from the sea. Again two days later, on August 13, I secured a young male of this species that was alone on the upper edge of Ipswich beach.

The specimens secured by Mr. Bradlee were examined by Dr. J. Dwight, Jr., who stated in a letter to Mr. Bradlee that the birds "were undoubtedly *praticola*" and "were in juvenal plumage, moulting into first winter dress, only two or three primaries and a few rectrices remaining. In this condition this species (or any sparrow) does not and probably can not migrate, so I have no doubt the birds were hatched near where they were found."

My own bird may have been from another brood, as although it was taken four days later, its plumage is more juvenal, being more spotted above, and having 9 juvenal rectrices and 4 juvenal primaries, against 5 rectrices and 3 primaries in Mr. Bradlee's birds. It was taken three miles from the first station.

The Prairie Horned Lark has been seen at Ipswich before in the fall migrations, but this is the first time it has been found there in the breeding season. At last this enterprising bird in its progress eastward has reached the sea. Formerly a bird of the western prairies, it was recorded as breeding near Troy, N. Y., in 1881 (Park, Bull. N. O. C., VI, 1881, p. 177). Its first recorded breeding in New England was at Cornwall, Vt., in June, 1889 (C. H. Parkhill, O. & O., XIV, 1889, p. 87). In 1890 specimens were secured in the breeding season in Williamstown and North Adams, Mass., by Mr. Walter Faxon (Faxon, Auk, IX, 1892, p. 202), and a nest and eggs were found near Pittsfield by Mr. C. H. Buckingham July 10, 1892 (Brewster, Auk, XI, 1894, p. 326).

In 1891 it was observed in June and July at Franconia, N. H. (Faxon, Auk, IX, 1895, p. 202). The foregoing records are from Faxon and Hoffmann on 'The Birds of Berkshire,' 1900, p. 138. They state that the bird is a "rare summer resident at Williamstown, North Adams, Lanesboro, Pittsfield."

In 1899 the bird was found breeding as far east as Hubbardston in Worcester County, Mass., Mr. Frederick Cunningham, Jr., in July of that year "finding a nest with eggs from which the young were safely reared" (Howe & Allen, 'The Birds of Mass.,' 1901, p. 81).—CHARLES W. TOWNSEND, M. D., *Boston, Mass.*

Black-backed Three-toed Woodpecker and Evening Grosbeak at Wellfleet, Mass.— In the vicinity of Wellfleet, Cape Cod, December 5, I killed a Black-backed Three-toed Woodpecker (*Picoides arcticus*), which is now in Mr. William Brewster's collection, and saw an Evening Grosbeak

(*Hesperiphona vespertina*). The Grosbeak was in the open near one or more buildings. I saw it close enough to be sure of the identification. It was a striking looking bird and could have been nothing else. Assuming it was the same individual all the time, it was very loath to leave the vicinity. I thought it had left, and departed myself, but came back later and found it again. I shot at it several times, but unfortunately did not secure it. The white wing patches were perhaps its most striking feature. It called (whistled) a great deal. — JOHN TREADWELL NICHOLS, *Cambridge, Mass.*

The Evening Grosbeak in Presque Isle Co., Mich.—Mr. O. S. Burton of Millersburg, Presque Isle County, Mich., informs me that the Evening Grosbeak (*Hesperiphona vespertina*) has put in an appearance in considerable numbers in his vicinity. These feed on the berries of the mountain ash. It has been a number of years since this species has been reported to me in the Lower Peninsular except an occasional bird.—BRADSHAW H. SWALES, *Detroit, Mich.*

The Bachman Sparrow (*Peucea aestivalis backmanii*) in the Vicinity of Cincinnati, Ohio.—On April 25, 1901, as I strolled about Rose Hill—a lately plotted subdivision of Avondale, Cincinnati, Ohio, and a region favored by the birds from primeval times—I heard a song from a sparrow, very sweet and unlike the songs of familiar resident or migrant sparrows. In the approaching dusk of evening it seemed to resemble a Field Sparrow in size and general coloring, as the bird flitted along from one low point to another, finally dropping into a bramble patch where the dimming light made it useless to follow.

On April 27, 1901, at a place three to four miles from Rose Hill—also a high, lightly wooded pasture, called Groesbeck Hill—a number of sparrows were singing similar songs to that heard on April 21. We were able to approach and examine several from close range as they sat singing most varied strains—never twice alike in opening, general composition, nor close of song, yet each repetition equally attractive. After careful observations with an opera glass, I felt reasonably certain of the Bachman Sparrow, heretofore on the hypothetical list for Ohio. It is one of the dullest and most inconspicuously plumaged of the 'sparrowy' arrayed sparrows.

On May 3, 1901, I visited the vicinity of Rose Hill again and did not fail to hear and see the Bachman in song. The opening notes of their songs are frequently exquisite, indrawn strains, of the quality of the Chickadee's daintiest *phoebe* whistle, followed by a lower-pitched trill with perhaps several Goldfinch-like notes introduced. The whole is superior in quality, variations and a certain plaintive cadence to any sparrow song I know.

The birds are quiet and with an almost passive manner. If undisturbed, they perch for a comparatively long interval on the same spot

(preferably an open perch), lifting up their heads and voices in song, sometimes running one song into another with scarce perceptible interval between. One can approach very close to the bird—within three feet and less—when they are settled in low situations, and they often rise from almost under foot if you pass through their haunts in the long grass or rank melilot. To escape, they will flit down into the grass and run away. They will perch for singing as high as thirty feet, but the usual situations are bushes and fences.

About Cincinnati, I am glad to say, this sweet-voiced sparrow is becoming more abundant yearly. In the spring of this year (1903) I began hearing them in full song April 18, and by May 1 met them in almost every direction in the country, singing from rail fences, wayside thickets and telegraph poles or wires. They especially abound in grass fields and old pastures northeast of the city, where their notes seemed the most familiar sounds, on the days I passed that way.

I am indebted to Mr. W. L. Dawson of Columbus, Ohio, for securing a specimen from near Rose Hill for me—a male in full song at the time he was shot; and also thank Mr. Wm. Hubbell Fisher for making a carefully finished skin, and Dr. Josua Lindahl for preserving tongue and contents of crop.—LAURA GANO, *Earlham Place, Richmond, Ind.*

Kirtland's Warbler (*Dendroica kirtlandi*) on the Coast of South Carolina.—On October 29, 1903, I shot near Mount Pleasant, S. C., a superb specimen of Kirtland's Warbler from the top of a water oak tree about 40 feet from the ground.

It was about 11 A. M., when I heard a chirp which I thought was that of a Prairie Warbler (*Dendroica discolor*) and as it was a very late date for a Prairie Warbler to be here I went in search of the bird.

The sound ceased entirely, but I kept looking into the water oak tree and did not move far away. At last I saw a small bird near the top of the tree behind a cluster of leaves, and when it moved it wagged its tail in a most deliberate and studied manner. The tail seemed to be disproportionately long and the body altogether unsymmetrical in contour. I at once realized that it was a Kirtland's Warbler—a bird that I had looked for in vain for twenty years. The bird kept constantly *behind* a limb or a cluster of leaves or twigs and remained in this position nearly all the time I was watching it. At last it changed its position and with its breast toward me I fired and found that I had secured a superb specimen of this rare Warbler.

The specimen is a young male, and had not entirely completed the moult, and was very fat. This bird makes the third specimen captured in South Carolina, and, if I have read the record correctly, makes the third specimen taken in the United States during the autumnal migration; while it is the latest fall record for the presence of the bird in the United States by eighteen days.

Previous to the capture of the bird heavy frosts were noted, and on the day of the capture there had been a heavy frost.—ARTHUR T. WAYNE, Mount Pleasant, S. C.

A Few Southern Michigan Notes.—Vireo philadelphicus. PHILADELPHIA VIREO.—I shot a finely marked male August 28, 1896, in St. Clair County. This bird was feeding in a small piece of woodland with a number of Red-eyed Vireos. I am positive that several other Philadelphia Vireos were present but as I obtained but one am not certain.

Cardinalis cardinalis. CARDINAL.—On January 1, 1903, I observed two birds at Belle Isle, the river park of Detroit. We have but few records of this species here and these have been of birds seen in winter, with but one exception.

Antrostomus vociferus. WHIP-POOR-WILL.—On October 5, 1903, I flushed a late bird from a thick undergrowth at Belle Isle. This is the latest date that I have ever recorded this species here.

Nyctala acadica. SAW-WHET OWL.—A male of this species was shot April 10, 1903, in the northeastern part of Detroit by R. E. Russell. He presented the specimen to me, but it was too badly decomposed to save it. This little owl is seldom seen here although this rarity may be more apparent than a fact.

Bartramia longicauda. BARTRAMIAN SANDPIPER.—Mr. C. Stenton shot a bird of this species east of the city October 20, 1902.

Olor columbianus. WHISTLING SWAN.—Unusually abundant during the past spring, especially at the St. Clair Flats. The first brought to my attention was a bird shot in Macomb County, bordering Lake St. Clair, by Ernest Ford. On March 14, while duck shooting at Bryant's, near the Middle Channel of the Flats, I watched a flock of fifteen feeding out in the lake. These were very wary and could not be approached. Various observers at the Flats reported to me large flocks being seen at different localities, and several were secured by the hunters and sportsmen. During April 1-10 several small flocks were reported to me. On April 17 I saw my last birds of the season—a small flock of eight feeding out in the lake near Avery's.

Sterna tschegrava. CASPIAN TERN.—While in Charlevoix County, bordering Lake Michigan, on August 16, 1903, I observed two of these birds. They were perched on the rocks bordering the shore and allowed a near approach. I watched them for some time through a Bausch and Lomb binocular.

Larus philadelphia. BONAPARTE'S GULL.—On October 17 and 18, 1903, I witnessed a very unusual sight, to me, with regard to this species. Large numbers were migrating down the St. Clair River, the main body consisting of immature birds. The flocks passed all day on the 17th and were quite numerous on the 18th. Now and then a flock would remain near where I was stationed to feed, giving me a fine chance to watch them. With these birds were a few *L. delawarensis*.

Colymbus auritus. HORNED GREBE.—Very abundant during the migrations during last fall and this spring. I first observed them October 18, 1902, near Fair Haven, on Lake St. Clair. In April, of this year, I found them common in the Detroit River above the city. On the 27th I saw about fifty birds, on May 4 about sixty. They were generally unsuspicious and allowed a near approach. I saw the last May 10, twelve birds.—BRADSHAW H. SWALES, *Detroit, Mich.*

Occurrence of the Ruff (*Pavoncella pugnax*) and Other Birds in Rhode Island.—**Larus atricilla.** LAUGHING GULL.—I observed two birds of this species on a marsh at Seaconnet Point on Aug. 24, 1903. One of the birds was in adult plumage, but the other seemed immature. This species is not often seen in Rhode Island, there being but one instance of its capture in the State recorded in 'The Birds of Rhode Island' by Howe and Sturtevant.

Hydrochelidon nigra surinamensis. BLACK TERN.—A fine male of this species was shot near Newport on July 30, 1903. It was just beginning to lose the black plumage.

Ardetta exilis. LEAST BITTERN.—A bird of this species was shot on July 18, 1903, on a salt marsh near Newport. It is now in my collection. The Least Bittern, although formerly common near Newport, seems to have become rare during the last five years.

Micropalama himantopus. STILT SANDPIPER.—This species occurred in greater numbers than usual near Newport in August and early September, 1903. It seems to be a very irregular migrant, varying in numbers from year to year.

Limosa hæmastica. HUDSONIAN GODWIT.—Eighteen 'Ring-tail Marlins' were observed at Point Judith on August 30, 1903, and six were shot. Three of these latter, which I obtained, proved to be adult birds, two being males and one a female. They were changing into winter plumage but still had many traces of the reddish summer plumage on the breasts and flanks. The birds were seen during a severe northeast gale and were easily approached as they stood huddled together in a pool of water about five inches deep. This species is rare in Rhode Island, not more than one or two being shot each year.

Pavoncella pugnax. RUFF.—An immature female of this species was taken at Point Judith, R. I., on August 31, 1903, by a local gunner. I obtained it of him and it is now in my collection. The bird, which was flying alone, was shot over decoys. I believe this is the second record for this bird in Rhode Island.—LeROY KING, *Newport, R. I.*

The Black-bellied Plover, Road-runner, and Black-throated Green Warbler in Kansas.—I wish to restore to my 'Catalogue of the Birds of Kansas' the Black-bellied Plover (*Charadrius squatarola*). It was omitted from my 5th edition (May, 1903) because I had no personal

knowledge of the capture of this species in Kansas. On the 22d of May I received from Dr. R. Matthews a mounted specimen from his own collection. It was captured at Wichita in 1896 by Mr. Ed. Goldberg.

I am also almost ready to add to my list the Road-runner or Chaparral Cock (*Geococcyx californicus*). Additional evidence of its having been "seen" is afforded by the statement of Prof. Chas. N. Gould of the University of Oklahoma, whom I met during a collecting expedition to southwest Kansas in May and June of the present year. He says: "In the summer of 1894 I saw a Chaparral Cock in the cañons west of Ashland, Clark Co., Kansas. In 1897 Dr. Lester F. Ward and I saw this bird at Belvidere, Kiowa Co., Kansas. But a single specimen was seen in each instance. The one at Belvidere was seen repeatedly in the evening, remaining around camp for several days." And finally, the 'Kiowa Signal,' published at Greensburg, Kiowa Co., Kansas, in July, 1903, gave an account of the capture of a "chaparral or snake-killer" by W. H. Wilbur of Kiowa township, who was said to have the bird in captivity. Letters addressed both to the newspaper and to Mr. Wilbur have thus far failed to elicit a reply.

POSTSCRIPT.—Since sending the above to 'The Auk' for publication I have visited the ranch of Mr. W. H. Wilbur, in the southwest corner of Kiowa County, Kansas, and have secured evidence of the capture in that locality of a specimen of the Road-runner (*Geococcyx californianus*). The bird was found in the chicken yard of Mr. Wilbur one morning during the last week of June, 1903. This yard is surrounded by a coarse wire netting and the bird when discovered was making strenuous efforts to find an opening for escape by running along the fence in search of an opening. Mrs. Wilbur caught the bird with her hands and placed it in a cracker box covered with an old stove grate. She fed it for two weeks upon grasshoppers and other insects until, becoming weary of the labor of providing its daily food, she turned it loose upon the prairie. Mrs. Wilbur was with her brother, Mr. Oris Ham, when the latter shot a specimen of the Road-runner on January 24, 1901, in Oklahoma, about thirty-five miles south of the Kansas line. The wings and tail feathers of this specimen were preserved so that the identification was entirely satisfactory. The date of capture of the Kansas specimen indicates that the species breeds in Kansas.

I wish also to put on record the capture, in Kansas, of a specimen of the Black-throated Green Warbler (*Dendroica virens*). I received the fragmentary skin of this specimen, which has been identified by Mr. J. A. Allen, from Mr. F. F. Crevecoeur of Onaga, Kansas, who states that it "was shot, as near as I can remember, in 1890 on French Creek, three miles north of Onaga."

The addition of the three species thus reported, the Black-bellied Plover, the Road-runner, and the Black-throated Green Warbler, increases my list of birds personally known by me to have been captured in Kansas, to 345 species and varieties. —F. H. SNOW, *Lawrence, Mass.*

RECENT LITERATURE.

Walton's '*A Hermit's Wild Friends*.'¹—As a popular work on out-of-door 'wild things' this collection of well-intentioned sketches will doubtless meet with many admirers, being printed on heavy paper in large type, with broad-margined pages embellished profusely with marginal cuts, and copiously illustrated with full-page plates, many of them after drawings by Fuertes, and others by Kennedy, with still others that have seen previous service. It is written, however, with a know-it-all cocksureness that only lack of knowledge ever prompts, and doubtless no amount of proof of error in the author's statements would in the slightest degree affect his attitude in the case. The author's "eighteen years of hermit life" in the woods on Cape Ann, Massachusetts, have given him opportunity for intimate acquaintance with the birds, small mammals and reptiles to be found in such localities, and he evidently knows them well. It is therefore the greater pity that through his wealth of imagination and predilection for humanizing his birds and mice and squirrels he should, perhaps unconsciously and therefore without dishonest motive, so often turn his sketches into incredible natural history romances. It would take too much space to itemize this general charge, but in the case of 'Wabbles,' a male Song Sparrow, alleged to have lived in his immediate neighborhood for "*fourteen years*," and "*eleven years . . . with his second wife*," we begin to wonder if the author knows the size of a No. 4 shot, a no inconsiderable pellet of lead he claims to have removed from "the muscle of the wing-joint" of 'Wabbles' when he first made his acquaintance. If he had been satisfied to call it a No. 10, or even a No. 8, it would take less imagination to conceive of its arrest by and lodgment in "the muscle of the wing-joint" of a Song Sparrow. And we could then have been better prepared to take a little stock in Wabbles's setting up a little family singing school and teaching "his boys to sing the mating-song of his species"; and also that on one tenth day of March, twelve years before the close of the author's related association with Wabbles, he might have "brought with him from the South a male linnet," and that "a week later Mrs. Wabbles returned, and with her was the mate of the linnet," in consequence of these four birds having "met in the South," and because: "In the course of bird gossip either the linnets or sparrows had announced that the summer home was on Cape Ann." In this romance of Wabbles a series of events is narrated with all the seriousness of positive knowledge, yet many of them are of such

¹ *A Hermit's Wild Friends, or Eighteen Years in the Woods.* By Mason A. Walton (The Hermit of Gloucester). Boston: Dana Estes and Company, Publishers. "Published October, 1903." 8vo, pp. i-x, 11-304, with numerous full-page illustrations and text-cuts.

a nature as to be outside the realm of the least shadow of proof, and can only rest on belief or on the promptings of the imagination.

This sample from the Hermit's repertoire is only one of many that adorn his chapters; indeed, it is a fair illustration of the general character of the book. His dogmatism in the chapter on 'The Instinct of the Cowbird' is only a further illustration of the cocksureness of ignorance. Apropos of young Cowbirds flocking together, and with the older members of their kind, in the fall, it is enough to quote: "I will say now, that long before I had opportunity to study the bird, I did not believe it possible for a young bird, by its own knowledge, to hunt up and associate with birds of its kind." Any one approaching an intricate question with this condition of mind can readily see, or imagine (perhaps unconsciously) that he sees, just what he desires to see. So our Hermit finds no trouble in solving, to *his* "belief," all the problems of the Cowbird question. It appears, however, that his first young Cowbird "was big and black," and he "thought it was a male. I made it a male," he says, "in my note-book. While the bird was in the nest I fastened a bit of copper wire to its leg, and the next spring when it returned, I found the bird was a female. I saw her with another female, I think it was the mother, visiting birds' nests. So the young Cowbird was educated to lay its eggs in other birds' nests. Nesting is educational and not instinctive." That is his answer to his question, "Why do young Cowbirds lay eggs in other birds' nests instead of building nests for themselves?" First, young Cowbirds, as all ornithologists know, but as many of Hermit's lay readers may not know, are brown and not black. Second, he saw his marked young Cowbird the next year, which proved then to be a female, going about with another female, presumed to be her mother, visiting other birds' nests and being thus "educated" as to what to do with her eggs, when in the course of natural events she should have eggs to dispose of! This is a sample of the Hermit's evidence and of his wonderful logic.

'A Hermit's Wild Friends' is not all bad; it has many delightfully written pages, but it is so obviously permeated with romance that one never knows when to take its pages seriously. It is noticed here not as a contribution to natural history, but as an example of a class of so-called 'nature books' that is misleading hosts of credulous readers who are unable to discriminate fact from fiction. Such books have thus a pernicious influence in giving wrong conceptions of the faculties and habits of animals. Nor is such writing confined to books, but leaves its nauseous trail over our magazines and newspapers. A fine example of this kind of literature appeared recently in 'The Outlook,' entitled 'Animal Surgery.'¹ The surprise is that such reading matter should find place in so

¹ Animal Surgery. By William J. Long. Author of "Beasts of the Field," "Secrets of the Woods," etc. The Outlook, Vol. LXXV, No. 2, Sept. 12, 1903, pp. 122-127.

intelligently conducted a journal. In this article is related a tale of two female Eider Ducks seen in a freshwater pond, "acting queerly," dipping their heads under water, etc., where the water was too deep for them to be feeding. As darkness came on speedily the mystery of this curious behavior could not be solved. A few weeks later, however, another bird of this species, an old drake, was seen in the same pond acting in the same queer way, and in this case the bird was shot, and found to have been caught by the tongue by a large saltwater mussel. Counsel was sought of an old fisherman, who had witnessed similar behavior by saltwater ducks on a few occasions, but he had no explanation of it to offer. On being shown the mussel taken from the drake's tongue, he said: "Mussels of that kind won't live in fresh water." Then both Mr. Long and the fisherman had an inspiration. The ducks caught by the tongue by mussels repaired to freshwater ponds to kill the mussels by drowning them! On this single case was built at once a theory to explain why saltwater ducks visit freshwater ponds and thrust their heads under water in such a queer way. "I have," he adds, "seen three different eiders practice this bit of surgery myself, and have heard of at least a dozen more, all of the same species, that were seen in fresh water ponds or rivers dipping their heads under water repeatedly." But in only one case, according to his own showing, did he know that the bird had a mussel on its tongue. The assumption is made that the case is proved, and the questions are raised as to how a bird found out "that certain mussels will drown in fresh-water," and "how do the other birds know it now when the need arises unexpectedly"; but, strange to say, they are left without an answer,—a golden opportunity neglected. Mr. Long does not claim to know, even, "whether all the ducks have this wisdom, or whether it is confined to a few rare birds."

The way in which a Woodcock proceeded to mend a broken leg is detailed with great minuteness. As witnessed by Mr. Long, the bird applied a bandage of clay and fibers of grass and rootlets with his bill to the wounded member, and after it had hardened enough to suit him fluttered away and disappeared in the thick woods. This bit of clever surgery was seen from "across a little stream," "too far away for me [him] to be absolutely sure of what all his motions meant." But then, *some years afterward*, Mr. Long, after examining hundreds of woodcock in the markets, at last "found one whose leg had at one time been broken by a shot and then had perfectly healed. There were plain signs of dried mud at the break; but that was also true of the other leg near the foot, which only indicated that the bird had been feeding in a soft place." The final proof came still later, through a lawyer friend of his who once upon a time had shot a woodcock which had a lump of clay on its leg, on the removal of which the leg was found to have been broken. The lawyer did not see the woodcock apply the clay, as did Mr. Long in his first case, nor was it suggested that the oozing fluids from the wound might cause the clay or earth to adhere and harden in a perfectly natural way. So,

Mr. Long was now emboldened, "*since proof is at hand*," to relate his observation, made so many years before, of how he saw a woodcock put its broken leg in splints.

These are only samples of the deplorable kind of 'natural history' writing that is now so rapidly coming into vogue, of which Mr. Walton's 'A Hermit's Wild Friends' and so much of Mr. Long's writings form striking examples. An active imagination, a slight knowledge of the subject considered, a clever knack at writing, a few pictures, make up the necessary capital for any amount of natural history romancing, and from the infiction of which upon the public publishers and editors seem to interpose no relief, either through ignorance or the consideration that such yarns meet with ready sale.—J. A. A.

Fisher's 'Birds of Laysan.'—In a paper of some forty pages, illustrated with ten plates, Mr. Walter K. Fisher has given a very interesting account of his ornithological work in the Laysan and Leeward Islands of the Hawaiian Group,¹ which he visited in the summer of 1902, on the expedition of the 'Albatross' to Hawaiian waters for the purpose of deep-sea explorations. Although the cruise lasted from March to August, there seems to have been very little opportunity for on-shore work. The 'Albatross' reached Laysan on May 16 and remained there till the 23d, during which period Mr. Fisher, with Mr. J. O. Snyder, was detailed "to make observations on the bird life of the island and collect such specimens as seemed desirable." Later brief stops were made at French Frigate Shoals, Necker and Bird Islands, but a landing was made only at Necker. In 'The Auk' for October, 1903 (pp. 384-397), Mr. Fisher gave an illustrated account of the forms of bird life peculiar to Laysan, and has contributed to the present number of this journal (pp. 8-20) a paper on the Laysan Albatross.

In the present official report some ten pages are devoted to the itinerary of the trip, including a general account, with illustrations, of the islands visited, and the more striking features of their bird life; this is followed by a systematic list of the 27 species observed, giving detailed accounts of their manner of life on these remote islands. The paper is illustrated with a colored plate of the Necker Island Tern (*Procelsterna saxatilis* Fisher) discovered on this trip, and 52 half-tones made up into nine plates. It is thus an important contribution to the history of island bird life, and especially to that of Laysan and the other islands visited.—J. A. A.

Jones's 'The Birds of Ohio.'²—The first twenty-two pages of this

¹ Birds of Laysan and the Leeward Islands, Hawaiian Group. By Walter K. Fisher. U. S. Fish Commission Bulletin for 1903, pp. 1-39, pll. i-x. Washington: Government Printing Office, 1903.

² The Birds of Ohio. A Revised Catalogue. By Lynds Jones, M. Sc., Oberlin College. Ohio State Academy of Science, Special Papers No. 6. 8vo, pp. 141, with map. Oct. 15, 1903.

extensively annotated catalogue of Ohio birds state the scope and purpose of the paper, explain the terms used to indicate relative abundance, give a rather detailed account of the topography and physical conditions of the State, including a consideration of faunal areas, etc., and finally a statement of the author's sources of information, with acknowledgments to contributors for assistance. There is also a bibliography at the close of the list, giving five pages of titles of works and papers relating to the birds of Ohio.

The list includes altogether 338 species, of which 299 are given as found more or less regularly in the State, 15 as merely accidental visitors, and 4 as extinct, making 318 indigenous species as of actual record for the State; there are 2 introduced species, and a hypothetical list of 18 species, the whole number being thus 338, as against 298 given by Dr. Wheaton in 1882.

The annotations give the manner of occurrence of the species as regards season and abundance, and their range within the State; there is also more or less reference to their economic status, there being generally a paragraph under each family heading relating to the food, and often a more detailed statement under many of the species. In addition to the A. O. U. Check-List names are given the synonyms, both technical and vernacular, of the species used in other works, and a reference to Dr. Wheaton's catalogue.

"This catalogue," says the author, "is a revision of Dr. J. M. Wheaton's catalogue issued in 1882 as a part of Volume IV of the Ohio Geological Survey. An attempt has been made to draw comparisons between the conditions prevailing then and now, especially as regards the bird life, and to add such facts as further study and improved methods have brought to light." In the Introduction, the changes in range of certain species within the State are considered, in connection with the probable invasion of the State by several species since Dr. Wheaton wrote. It is needless to say that Professor Jones's 'Catalogue' is a most trustworthy and highly important contribution to Ohio ornithology, being based in part upon special field work he has been able to conduct through a grant by the Ohio State Academy of Sciences from the 'Emerson McMillin Research Fund,' through which also the expense of publication was met. — J. A. A.

Anderson and Grinnell on the Birds of the Siskiyou Mountains, California.¹— This is a record of birds collected or observed by Mr. Anderson in the extreme northwestern part of California between September 6, 1901, and March 10, 1902, with "critical remarks on specimens and distribu-

¹ Birds of Siskiyou Mountains, California: a Problem in Distribution. By Malcolm P. Anderson and Joseph Grinnell. Proc. Acad. Nat. Sciences of Philadelphia, 1903, pp. 4-15. April 17, 1903.

tion" by Mr. Grinnell. A couple of pages descriptive of the limits and physical characteristics of the region, with a list of the trees, is followed by an annotated list of 43 species of birds and a 'summary' of the principal points relating to their distribution. The list shows a mixture, at least in winter, of humid coast forms and arid Sierran forms, the Siskiyou Mountains being "evidently on the narrow line of mergence between the humid coast fauna and the arid Sierran fauna."—J. A. A.

Sharpe's 'Hand List of the Genera and Species of Birds.'—Volume IV. — Volume IV¹ continues the list of the Passeriformes, and includes the families Timeliidæ (with six subfamilies), Troglodytidæ, Cinclidæ, Mimidæ, Turdidæ (with nine subfamilies), Sylviidæ, Vireonidæ, Ampelidæ, Artamidæ, Vangidæ, Prionopidæ, Aerocharidæ (with a single species), Laniidæ, Paridæ, Chamæidæ, Regulidæ, Sittidæ, and Certhiidæ. A fifth volume has been found necessary to complete the work, and its publication is promised in the course of a few months.

The present volume is fully up to the high standard of its predecessors, being in every sense fully up-to-date. As in previous volumes, the proof-sheets have been revised by a considerable number of the leading ornithologists of Europe and America, and the author makes numerous acknowledgments of indebtedness for suggestions thus received.

As regards American birds, it may be noted that *Anorthura* is retained for the Winter Wrens, since "the only bird in Rennie's mind [when he proposed the genus] was certainly the European Wren." "The arrangement of the Turdinæ, as here set forth, is founded on the scheme proposed by Dr. Stejneger in 1883, with certain changes and modifications.... The arrangement of the true Turdidæ into Thrushes (*Turdus*) and Blackbirds (*Merula*) breaks down on close examination; but a more prolonged study is necessary before an arrangement, satisfactory to all ornithologists, can be arrived at.... The distinctive characters between the genera *Turdus* and *Merula* are very slight, and the difference in colour of the sexes in the latter genus is of no account. The proportion of the primary-quills emphasized by Dr. Stejneger is also an unstable character," etc. Just what is the basis of Dr. Sharpe's present arrangement is not quite clear, nor are the reasons for some of the new associations and dissociations at all evident. Between *Turdus* and *Merula* are interposed nearly a dozen other

¹ A Hand-List of the Genera and Species of Birds. [Nomenclator Avium tum Fossilium tum Viventium.] By R. Bowdler Sharpe, LL.D., Assistant Keeper, Department of Zoology, British Museum. Volume IV. London: Printed by Order of the Trustees. Sold by Longmans & Co., 39 Paternoster Row, E. C.; B. Quaritch, 15 Piccadilly, W.; Dulau & Co., 37 Soho Square, W.; Kegan Paul & Co., 43 Gerrard St., W.; and at the British Museum (Natural History), Cromwell Road, S.W. 1903. All rights reserved.—8vo. pp. i-xii, 1-391.

genera, while some of the species of these two groups are most certainly much more nearly related to each other than they are to any of the interposed groups. Our Robin group is allotted to *Turdus*, and forms the only American species of the genus, except *T. rufitorques* of Mexico and Central America.

It seems like returning to the 'good old times' to see such groups as the Mimidæ, Regulidæ, Paridæ, Certhiidæ, etc., installed again as full-fledged families.

Parus is restricted to a group of Old World Titmice, the American species hitherto referred to *Parus* being placed in *Picile* Kaup, except *P. gambeli*, for which the new genus *Picilodes* Bianchi (1902) is adopted.

The recent additions to the list of described forms are given at their face value, with, however, references to adverse opinions when any such have been made public. In short, the care, thoroughness and fairness of Dr. Sharpe's great work will long render it a most invaluable aid to every systematic ornithologist.—J. A. A.

Ridgway on New American Birds.—Mr. Ridgway, in preparing Part III of his 'Birds of North and Middle America,' has found it desirable to describe a number of new genera, species, and subspecies.¹ The new genera comprise the following four genera of Swallows, as follows: *Alopochelidon*, type, *Hirundo fucata* Temm.; *Orochelidon*, type, *Petrochelidon murina* Cass.; *Diplochelidon*, type, *Hirundo melanoleuca* Wied; *Lamprochelidon*, type, *Hirundo enchrysea* Gosse. The new species and subspecies, 29 in number, are mostly from Mexico and Central America, but the following come within the scope of the A. O. U. Check-List: (1) *Budytes flavus alascensis*, Western Alaska; (2) *Vireo huttoni cognatus*, Cape district of Lower California; (3) *Vireo bellii arizonæ*, western Texas and Arizona; (4) *Lanius ludovicianus mearnsi*, San Clemente and Santa Margarita Islands, L. Cal.; (5) *Bæolophus inornatus restrictus*, vicinity of San Francisco Bay, Cal.; (6) *B. i. murinus*, northern Lower California; (7) *Psaltiriparus minimus saturatus*, Mount Vernon, Wash.; (8) *Chamæa fasciata rufula*, central coast region of California; (9) Mississippi Valley and Great Plains region, north to Alberta.—J. A. A.

Nelson on New Birds from Mexico.—The 13 new species and subspecies here described² were mainly collected by Messrs. Nelson and Goldman in southwestern Mexico during the winter of 1902-03. They

¹ Descriptions of New Genera, Species, and Subspecies of American Birds. Proc. Biol. Soc. Wash., XVI, pp. 105-113, Sept. 30, 1903.

Diagnoses of Nine New Forms of American Birds. *Ibid.*, pp. 167-170, Nov. 30, 1903.

² Descriptions of New Birds from Southern Mexico. By E. W. Nelson. Proc. Biol. Soc. Wash. XVI, pp. 151-160, Nov. 30, 1903.

include a Quail-Dove, a Grouse (*Dactylortyx*), an Owl, 10 species of Passerine birds, of which several are given the rank of full species.—J. A. A.

Oberholser on a New Wren from Texas.—Mr. Oberholser has described¹ the Long-billed Marsh Wren of eastern Texas and Louisiana as *Telmatodytes palustris thryophilus*, it differing from *T. palustris* in smaller size, paler and grayer coloration.—J. A. A.

Hartert's 'Die Vögel der paläarktischen Fauna.'²—Mr. Hartert's Birds of the Palearctic Fauna is to comprise two volumes of about 650 pages each, to be issued in ten parts, at four marks each, and to be completed during 1905. Part I consists of an introduction of twelve pages and the first 112 pages of the text, and comprises the families Corvidæ, Sturnidæ, Oreolidæ, and the first part of the Fringillidæ, numbering altogether 184 species and subspecies. In the introduction the author clearly defines his attitude as regards 'lumping' and 'splitting,' and on various questions of nomenclature; he takes Linnaeus at 1758, adheres strictly to the rule of priority, and employs trinomials in the most approved way for subspecies. These he recognizes with great liberality, but displays much conservatism in respect to genera. For example, under *Acanthis* he would combine *Carduelis*, *Chrysomitris*, *Linota*, *Spinus*, *Astragalinus*, and *Hylocanthus*, and similarly under *Corvus* various allied groups that are often given generic rank. He emphatically disapproves of the supposition that birds can change the color and markings of their plumage without a renewal of the feathers, and in other respects stands in the front rank of the new school.³

Passing now to the systematic portion of the work, the higher groups are briefly characterized, and under the genera there are keys to the species, but, generally, not to the subspecies; there is no generic synonymy, and the citations under the species and subspecies are restricted to the first mention of the names adopted, and their synonyms. The characters of the species are quite fully given, with a brief statement of their geographical ranges, manner of nesting, character of the eggs, etc., and under the subspecies their distinctive characteristics and distribution.

The geographical scope of the work is sufficiently indicated by the title, but the southern boundary of the Palearctic Region is not very sharply definable. In general terms the region includes all of Europe, northern

¹ Descriptions of a New *Telmatodytes*. By Harry C. Oberholser. Proc. Biol. Soc. Wash., XVI, pp. 149, 150, Nov. 12, 1903.

² Die Vögel der paläarktischen Fauna. Systematische Übersicht der in Europa, Nord-Asian und der Mittelmæerregion vorkommenden Vögel. Von Ernst Hartert. Heft. I. Mit 22 Abbildungen. Berlin. Verlag von R. Friedländer und Sohn. Ausgegeben in November 1903. Large 8vo, pp. i-xii, 1-112.

Africa to the Sahara, and Asia south to northern Arabia and the Himalayas, and China to about the latitude of Peking. A few North American forms are included when they belong to circumpolar species, for the purpose of completing the account of the group, as in *Pica pica* and the genus *Acanthis* but not in the case of *Corvus corax*, although this species is cited in the introduction as an example of this treatment. It is to be noted that the name *flammea* (*Fringilla flammea* Linn.) is substituted for the familiar *linaria* (*F. linaria* Linn.) for *Acanthis linaria*, on the basis of precedence on the same page. Several subspecies are also here described for the first time.

Although we have a recent popular manual on the birds of the same region, the present work is to be most heartily welcomed as an exposition of the subject from a technically up-to-date standpoint.—J. A. A.

'The Avicultural Magazine.'—'The Avicultural Magazine'¹ is the journal of the Avicultural Society, which has for its object "The study of foreign and British birds in freedom and captivity," exclusive of "Poultry, Pigeons and Canaries."

It is published monthly, forming an annual volume of about 450 pages, with numerous colored and other plates, and also text figures. It is devoted, as the name implies, largely to the habits and rearing of wild birds in captivity, but contains also papers on birds observed in a state of freedom; the present volume including a series of illustrated popular papers by Mr. J. Lewis Bonhote on birds observed by him in the Bahamas (already noticed in this journal, XX, 1903, p. 230); on 'Birds in Towns,' by John Sergeant; 'The Late Rains and their effect on Bird Life' (in England), by E. G. B. Meade-Waldo, etc. Besides the general articles, there are departments for 'Reviews,' 'Bird Notes,' 'Correspondence,' etc.

An interesting note from a bird-dealer on 'British Birds in New Zealand,' states that Goldfinches, Redpolls, Chaffinches, Greenfinches, Hedge Sparrows, Thrushes, Blackbirds, Yellow-hammers, Buntings, and Gray Linnets, liberated some twenty-five years ago, have become very abundant so that a catch of "fifteen dozen Goldfinches a day," or seventeen dozen Redpolls, is easily made, while Chaffinches, Greenfinches and Hedge Sparrows may be had in "any quantity."

The magazine is largely taken up, as would be expected, with the habits and care of birds in captivity. There are several very interesting

¹ The | Avicultural Magazine, | being the Journal of | the Avicultural Society for the Study of | Foreign and British Birds | in Freedom and Captivity. | Edited by | D. Seth-Smith, F. Z. S., M. B. O. U. | New Series, Vol. I. | November, 1902 to October, 1903. | London: | R. H. Porter, | 7, Princes Street, Cavendish Square, W. | 1903. —8vo, pp. i-xx, 1-431, 32 pll. (12 colored) and 18 text figures. Annual membership subscription, 10s.

communications on the nesting habits of a number of species, and some discussion under 'Instinct and Nest-building' of Wallace's theory that young birds learn to make their nests because they have themselves been reared in one, the experience of various contributions being to the effect that birds in captivity nest 'true to type' when the conditions are favorable, regardless of whether reared in a typical nest of their own species or not.

The magazine is evidently an authority in its own field, and an invaluable medium of communication and bond of union between the members of the Avicultural Society, which was founded in 1894, and has shown substantial and steady growth.—J. A. A.

Seth-Smith's Handbook of Parrakeets.¹—Part VI, concluding this excellent work,¹ has been received, comprising pages 217–281, i-xx, and three colored plates, representing five species. The scope of the work, as defined by the author, is as follows: "Scientifically speaking, there is no distinction between a 'Parrot' and a 'Parrakeet,' the latter word being purely a popular term used for the smaller Parrots. It cannot be applied to any particular family, or subfamily, nor to those species with long or short tails. The gigantic Macaws are never called Parrakeets, but they are closely related to the Conures, and possess the long tails that one generally associates with Parrakeets. The title of this work, must, therefore, be interpreted in the sense in which it is generally used by aviculturists—that is, to mean the smaller Parrots, whether they possess short tails or long, whether they have ordinary or filamented tongues." The work, however, is not intended as a monograph of all the species, but only of the imported species, or those known to the author to have been imported. The number included in the present work is 131 species, of which colored figures are given of 33, and text figures of 23, mostly additional to those shown in the colored plates.

The general character of the work has already been given in our notice of Parts I-V (Auk, XX, pp. 322, 323), and we need add little more than to say that the author has provided for the large number of aviculturists and others interested in this class of popular cage birds a manual giving a large amount of interesting information concerning their habits and distribution in a wild state, their proper treatment in confinement, descriptions by which they may be easily identified, and very useful colored figures of many of them.—J. A. A.

¹ Parrakeets. | A Handbook to the Imported Species. | [Vignette] By | David Seth-Smith, M. B. O. U., F. Z. S. | With Twenty Coloured Plates and other Illustrations. | London: | R. H. Porter, | 7, Prince's Street, Cavendish Square, W. | 1903. — 8vo, pp. i-xx + 1–281, with 20 colored plates and numerous text-figures.

SUPPLEMENT.

REPORT OF THE A. O. U. COMMITTEE ON THE PROTECTION OF NORTH AMERICAN BIRDS FOR THE YEAR 1903.

BY WILLIAM DUTCHER, CHAIRMAN.

Plates XII-XVIII.

THE Audubon Societies and the generous subscribers to the Thayer Fund have every reason to congratulate themselves upon the steady progress of bird protection work in the United States during the past twelve months. The present outlook of the work is like the intermittent notes of birds before the break of day, or the first gleam of Heaven's amber in the eastern gray; if those who are now working may not see the full meridian sunlight yet the results of 1903 are an earnest of what we hope may be accomplished in the next decade. After all, it is honest love for our work, honest sorrow for the ills which we see about us in the bird world, honest work for the day that is present with us, and honest hope for to-morrow that must govern our actions. When we rise above the sordidness that so often hinders spiritual work, and learn to believe that it is better sometimes to invest in deeds of mercy to God's helpless creatures than it is to invest in the best of securities, we will find that our works of love are better paying investments and will bring us in something far higher and nobler. Our labors will go forth to bless our country and make the world about us fairer and better; in addition it will react and make ourselves not only happier but better, as we will realize that unselfish work is far better than work for personal display or self aggrandizement.

The year's results have been so full of interest, have developed so rapidly, and bid so fair to develop more rapidly in the future, that it becomes necessary to make a very detailed report under the head of each Commonwealth; this is done in order that each society may have a general idea of what each other society is doing, and thus the strong, aggressive bodies become an example and lesson to those that are not so successful; new ideas of work are

also thus suggested. In this connection the work of the North Carolina Society, in securing funds from their sustaining members, is certainly commendable and is an object lesson of the greatest force to other societies who complain of the difficulty in securing funds for their work. If in a State that is comparatively poor, 331 sustaining members can be secured for the asking, what would be the result of the same effort in the more wealthy and thickly settled States?

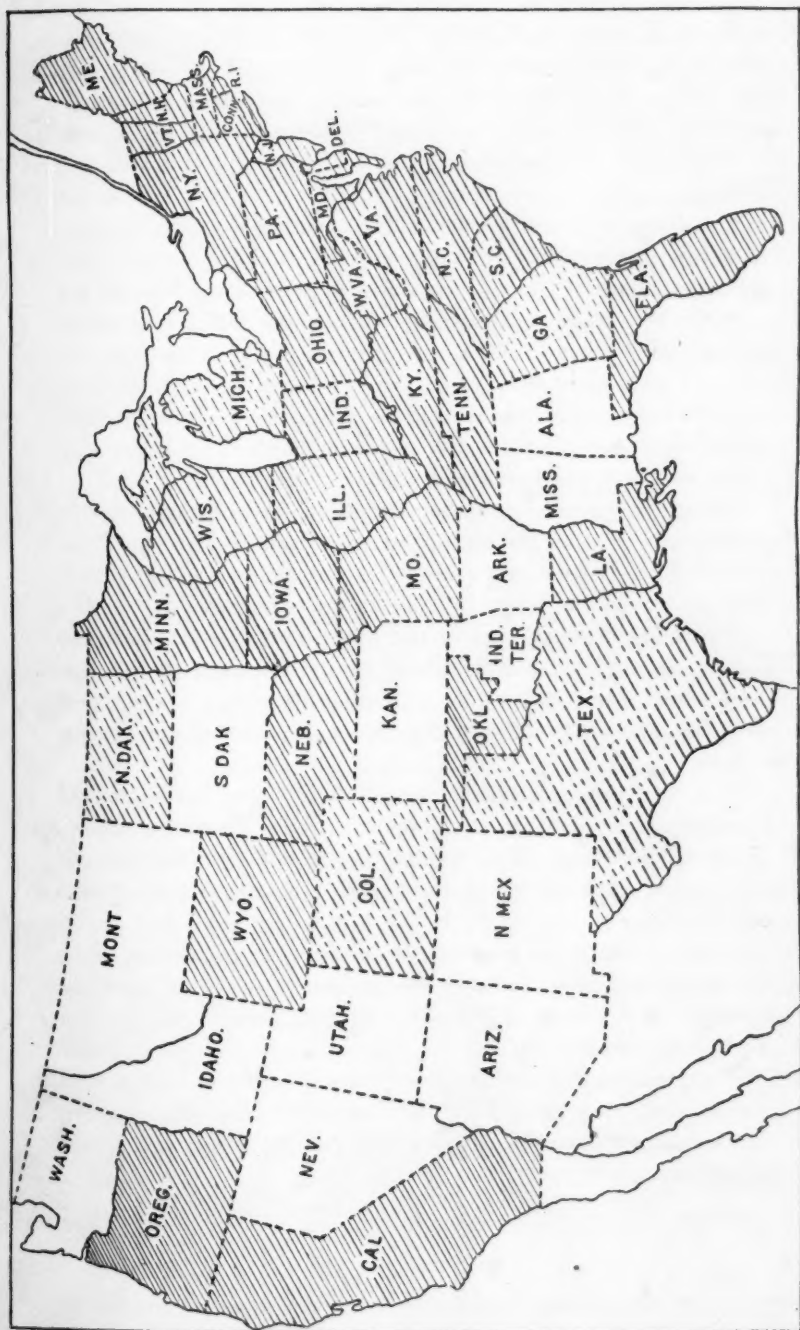
The activities of the past year have been confined to three channels, as heretofore: Legislation, Warden Work, and Audubon or Educational Work. The legislative branch has been particularly successful, inasmuch as the A. O. U. model law has been adopted in nine States, as follows: Virginia, North Carolina, Georgia, Tennessee, Texas, Minnesota, Colorado, Oregon, and Washington (see map).

Besides this, the influence of the National Committee was given to the bettering of the game laws, in stopping spring shooting, preventing sale and transportation of game, and in other directions. In five States we were unsuccessful in our efforts to improve the non-game bird law; the reasons for our failure are given later under the heads of the following States, namely, California, Kansas, Michigan, Missouri, and Oklahoma Territory.

The Warden Work of the year was largely increased over that of previous years and will be still further broadened during the coming year, provided sufficient funds are furnished to enable the National Committee to carry out its present plans.

Audubon and Educational Work go hand in hand and are really the foundation of the great economic movement that is now going on; prohibitive laws and the actual guarding of breeding birds by wardens are important, but unless these are upheld by a moral sentiment in the public mind, the goal that we are aiming at may never be reached:

"Books! 't is a dull and endless strife:
Come, hear the woodland Linnet,
How sweet his music! on my life,
There's more of wisdom in it.
And hark! how blithe the Thristle sings!
He, too, is no mean preacher:
Come forth into the light of things,
Let Nature be your teacher."



(Broken lines indicate States in which Societies were first organized in 1903.)

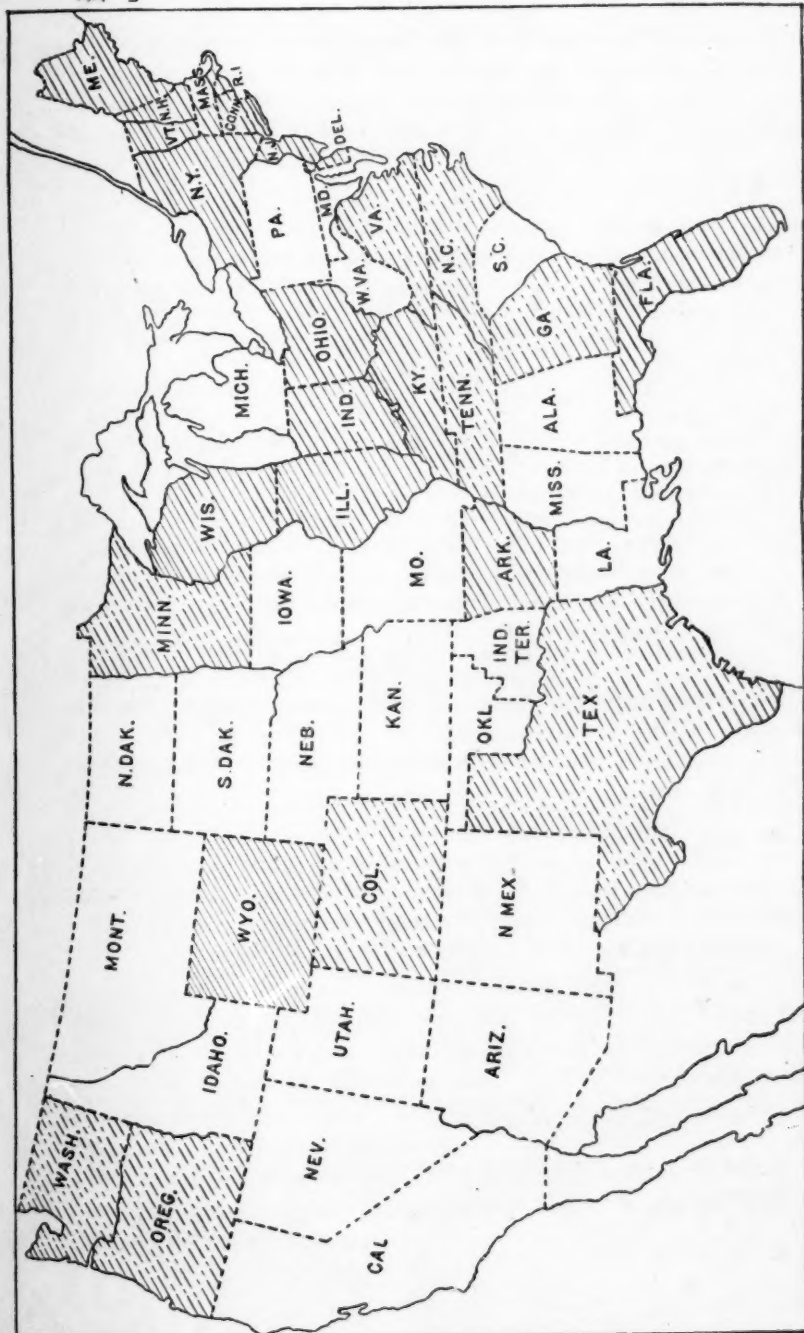
Audubon societies are educating both adults and children; it is teach, teach, teach, both in the field and by libraries, pictures, lectures, and every method to make the masses acquainted with the bird in life. Day by day and year by year there is a steady growth of sentiment in favor of bird protection; this can be seen on every hand. Unfortunately there are a few unsympathetic and doubting people who say all this work is not necessary because the fashion is changing and the use of birds' plumage is not very popular at the present time; this, however, we believe is not a fact. The reason there is less plumage now used is simply because the Audubon sentiment is increasing; it is more difficult to obtain wild birds' plumage; protective laws are being passed in the country; and, as is reported by the Wisconsin Audubon Society, milliners say it is impossible to sell a hat trimmed with wild birds' plumage to the mother of a child who belongs to an Audubon society, or who is taught in the school about birds.

During the year new Audubon societies have been organized in the following States: Michigan, Georgia, North Dakota, and Colorado, and it is found that there is a steady and persistent growth of the Audubon movement in other localities (see map).

One of the greatest gains of the past year in educational lines was the educational leaflets issued by the National Committee; these have been found to fill a long-felt want and are practical methods of teaching not only the æsthetic but the economic value of birds.

It is most unfortunate that these leaflets cannot be distributed gratuitously; requests are made almost daily for them from schools or individuals which cannot be met, and it dampens the ardor of the inquirer when we cannot freely give them our literature without charge.

Probably one of the most important advance movements in the history of bird protection was the agreement made in April last between the Millinery Merchants Protective Association, the New York Audubon Society and the American Ornithologists' Union. This agreement was concurred in by the Western Millinery Association, and has been so widely noticed in the press of the country that it is unnecessary to do more than give the actual text of the agreement.



MAP SHOWING STATES (SHADED) WHICH HAVE ADOPTED THE A. O. U. MODEL LAW.
(Broken lines indicate the States which passed the Law in 1903.)

AGREEMENT BETWEEN THE MEMBERS OF THE MILLINERY MERCHANTS PROTECTIVE ASSOCIATION OF NEW YORK AND THE AUDUBON SOCIETY OF THE STATE OF NEW YORK.

The members of the Millinery Merchants Protective Association hereby pledge themselves as follows :

To abstain from the importation, manufacture, purchase or sale of gulls, terns, grebes, hummingbirds and song birds.

To publish monthly in the Millinery Trade Review a notice informing the millinery trade in general that it is illegal to buy, sell or deal in gulls, terns, grebes, hummingbirds or song birds, and that no means will be spared to convict and punish all persons who continue to deal in the said prohibited birds.

To notify the millinery trade by printed notices as to what plumage can be legally used.

To mail printed notices to all dealers in raw materials, importers and manufacturers of fancy feathers and to the millinery trade in general that all violations of the law will be reported to the proper authorities.

It is further agreed on the part of the Millinery Merchants Protective Association that on and after January 1, 1904, the importation, manufacture, purchase or sale of the plumage of egrets or herons and of American pelicans of any species shall cease, and the said birds shall be added to the list of prohibited species mentioned above.

It is understood and agreed that the restrictions referred to in this agreement as to gulls, terns, grebes, herons and hummingbirds, shall apply to the said birds irrespective of the country in which they may have been killed or captured.

The Audubon Society of New York State on its part hereby agrees as follows :

To endeavor to prevent all illegal interference on the part of game wardens with the millinery trade: to refrain from aiding the passage of any legislation that has for its object restrictions against the importation, manufacture or sale of fancy feathers obtained from domesticated fowls or of the plumage of foreign birds other than those specifically mentioned above.

It is agreed by each of the parties that this contract shall remain in force for a period of three years from the date of its execution.

FOR THE AUDUBON SOCIETY OF
NEW YORK.

FRANK M. CHAPMAN,
*Chairman of the
Executive Committee.*

FOR THE MILLINERY MERCHANTS
PROTECTIVE ASSOCIATION.

GEORGE LEGG, *President,*
CHARLES W. FARMER, *Secretary.*

The above agreement, is concurred in by the American Ornithologists' Union.

WILLIAM DUTCHER,
Chairman Protection Committee.

This agreement, it is believed, is being lived up to by the milliners with very few exceptions, a notable one being the refusal of three firms in New York who are not members of the Association, and who refuse to be governed by the agreement in respect to the use of aigrettes.

The further use of the aigrette in the United States, therefore, becomes a matter of ethics. The women who will not wear the aigrette are upholding every good impulse and are living up to the sentiment expressed by Coleridge :

He prayeth well, who loveth well
Both man and bird and beast.
He prayeth best, who loveth best
All things both great and small;
For the dear God who loveth us,
He made and loveth all.

On the other hand the women who still persist in wearing the aigrette, no matter whether it was secured in this country or any other, does so at the cost of a life taken in the cruellest possible manner. The plume when worn is not an emblem of grace and beauty, but is a badge of cruelty and inhumanity.

The National Committee offers the following suggestions for the work of the coming year :

A decided and energetic effort must be made to prevent the use of automatic guns. Birds and game are disappearing quite rapidly enough by the use of the ordinary shot gun, but if the magazine gun comes into general use, it simply multiplies enormously the present means of destruction.

Every State should be urged to follow the example set by Pennsylvania and Delaware in appointing an Honorary Consulting Ornithologist; he may be connected with the Board of Agriculture or with the Fish and Game Commission, and all matters relating to the bird life of the State, or the laws governing the same, should be referred to him for expert opinion. In every State may be found ornithologists of note who would be willing to contribute their services without compensation.

The Audubon societies should affiliate closely with the Humane societies; many of these throughout the United States are now

doing excellent bird protection work, and 'as the objects of both societies are in the main similar, the good work of the Humane societies should be recognized.

Farmers' organizations should be encouraged (see Illinois); if the owners of land will band together to prevent illegal shooting upon their properties and thoroughly post and police their farms, much illegal killing of both game and non-game birds will be the result; this is especially important in localities adjacent to the large cities where the foreign population is numerous. As many of these people do not readily understand English, it is of the utmost importance that warning notices printed in Italian, Polish, and Scandinavian should be freely distributed in suburban localities. Only fifteen States are without trespass laws as follows: Alabama, Arkansas, Connecticut, Delaware, Kansas, Maine, Maryland, Montana, Nevada, New Hampshire, North Dakota, South Carolina, Utah, Vermont, and Wyoming.

In many of the States Sunday shooting is strictly prohibited; this gives absolute rest to bird life for one day in the week, and the Audubon societies should see that this law is complied with; the twenty-one States and Territories that have no law prohibiting Sunday shooting are, Arizona, Arkansas, California, Colorado, Hawaii, Idaho, Illinois, Louisiana, Michigan, Montana, Nevada, New Mexico, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, Washington, Wisconsin, and Wyoming, and in these Commonwealths such a law should be passed at once.

Another subject that should engage the attention of the Audubon workers is, the feline hunter; in other words, the house cat run wild, for there is no doubt that millions of birds are killed in the United States and Canada every year by cats. This is a subject that has never received the attention its importance warrants. Most States provide for a license or tax on dogs, so that the number is kept within reasonable limits, and none are permitted to run wild as cats do; there is no good reason why a tax should not be placed on cats.

The National Committee feel very strongly that all of the Audubon societies should heartily support our organ 'Bird Lore.' This magazine is conducted with the sole purpose of educating the public, especially the children of the country, about birds;

nothing is admitted to its pages that is not scientifically correct, and everything is presented in a popular and interesting manner. It is always beautifully illustrated, and gives reviews of new bird publications.

During the coming year each issue will furnish interesting news regarding the work of the National Committee; besides this, every number will contain a new educational leaflet which will afterward be printed as a 'separate' for general distribution. The more widely our magazine can be distributed the greater will be the progress of our work.

During the past year the Committee has received in contributions for the various branches of work the sum of \$3,756.85, which has been expended with the greatest care and economy; notwithstanding this, at the close of the year, the Committee was confronted with a deficit of \$158.90.

It is absolutely necessary that the Committee should have at its disposal for the year 1904 a sum not less than \$5,000, and it is desirable that even a larger amount should be provided by those interested in the furtherance of this great economic work. The Committee should be in a position to distribute its leaflets free, otherwise its educational work will be seriously hampered.

The territory to be covered by wardens during the coming year will be very much larger than heretofore. In addition it is of the utmost importance that the National Committee shall be able to send into the State of Louisiana at the next session of the Legislature some of its best speakers and most active bird protection workers, in order to secure the passage of the A. O. U. model law. For generations the indiscriminate slaughter of birds of all kinds in Louisiana has been permitted; this must be shown to be wasteful and wrong.

A material increase in the Thayer Fund is earnestly urged upon the thoughtful consideration of those who have so generously supported it in the past. If every one of our loyal friends will secure an additional subscriber the necessary working fund can be readily secured.

The Subcommittee on Foreign Relations present the following report of its work for the past year.

PHILIPPINE ISLANDS.—A Committee was appointed at the last annual meeting to take measures to prevent the use of the birds of the Philippine Islands for commercial purposes.

A memorial was prepared and sent to the Honorable Secretary of War, as follows :

SIR : —

At the Twentieth Congress of the American Ornithologists' Union, held in Washington, D. C., November 17-20, 1902, the following preamble and resolutions were unanimously adopted :

Whereas, During the past twenty years there has been an alarming decrease in the wild birds of the world, and

Whereas, The said decrease has been largely occasioned by the use of birds' plumage for millinery ornaments, and

Whereas, Scientific study of bird life by experts reveals the fact that wild birds are of great economic value, and

Whereas, A systematic effort is now being made for the preservation of wild bird life in this country as well as in foreign countries, therefore

Be it resolved, That a Committee of five Fellows of the American Ornithologists' Union be appointed by the President, to take such action as will best conserve all bird life.

In accordance with these resolutions the Committee respectfully invites your attention to the importance of taking steps to prevent the export from the Philippine Islands of game and birds, more especially of those species whose plumage is used for millinery purposes. Laws prohibiting export are considered indispensable in bird protection, and are now in force in all but four or five States and Territories of the United States. Such a law was also enacted by Congress in June, 1902, for the protection of birds in Alaska.

At present there is an enormous demand for the plumage of birds used by the millinery trade, and much of this plumage is obtained from birds of the East Indies, Australia, and New Guinea. Birds are now protected in most of the colonies of Australia, in India, and Burma ; steps have been taken to protect certain species in British New Guinea; and within the past year the export of birds and plumage from India has been absolutely prohibited. Apparently in most countries of the Orient under British rule efforts are being made to curtail the wholesale destruction of birds for millinery purposes, and the enforcement of existing laws will inevitably drive the plume hunter to new fields, including the Philippine Islands. While it is not probable that many birds are now shipped from the Philippines, it seems desirable to prohibit such export before the plume trade has gained a foothold in the islands.

The Committee therefore respectfully requests your coöperation in this matter, and also requests that the subject be brought to the attention of

the Philippine Commission with a view to taking such action as may be possible to prevent the destruction of birds for export from the islands.

Respectfully,

WM. DUTCHER, CHAS. W. RICHMOND,
THEODORE S. PALMER, RUTHVEN DEANE,
FRANK M. CHAPMAN.
Committee on Foreign Relations.

Action on the memorial was taken as per the following letters:

WAR DEPARTMENT,
Bureau of Insular Affairs,
Washington, D. C., February 9, 1903.

GENTLEMEN:—

By direction of the Secretary of War, I have the honor to acknowledge the receipt of your communication to him of January 31, setting forth the preamble and resolutions adopted at the Twentieth Congress of the American Ornithologists' Union.

You are respectfully informed that your communication has this day, been transmitted to the Hon. William H. Taft, Civil Governor, Manila, P. I.

Very respectfully,
CLARENCE R. EDWARDS,
Colonel, U. S. Army,
Chief of Bureau.

DEPARTMENT OF THE INTERIOR,
Manila, June 24, 1903.

SIR:—

Replying to your letter of January 31, 1903, addressed to the Secretary of War, a copy of which was forwarded to me, I beg to say that there will be, in my judgment, no difficulty whatever in securing the adoption by the Philippine Commission of legislation to insure the protection of wild birds in the Philippine Islands.

There is at present, to the best of my knowledge and belief, no exportation of bird skins from these Islands.

I should appreciate it if you would send any literature on this subject which you have available.

Very respectfully,
DEAN C. WORCESTER,
Secretary of the Interior.

NEW YORK, August 27, 1903.

DEAR SIR:—

In response to your favor of June 24, I beg to enclose you herewith

copies of game laws as follows: Two Acts of India; Two Acts of New Zealand; and One Act of South Australia.

I also enclose a copy of the A. O. U. model law.

From all of this matter I think that you will be able to formulate a good law for our Philippine possessions.

Very respectfully,

WILLIAM DUTCHER,
*Chairman A. O. U. Committee on Protection
of North American Birds.*

From the tenor of the above correspondence it may be safely concluded that the bird life of the Philippine Islands will never be offered as a sacrifice on the altar of fashion or to the greed of man.

MIDWAY ISLANDS.—The Midway Islands are a station of the new Pacific Cable Company and belong to the United States. They are the homes and breeding places of countless seabirds, among them a species of pure white tern. Thousands of these birds suddenly appeared in the millinery market about a year since, under the trade name of 'Albinas' and it was feared that these terns would shortly be as nearly exterminated as were the terns of the Atlantic coast.

The following correspondence shows what the Committee has done to preserve these birds.

NEW YORK, July 2, 1903.

HON. WM. H. MOODY,
Secretary of the Navy,
Washington, D. C.

DEAR SIR:—

I am informed that large numbers of seabirds breed and make their home upon the Midway Islands in the Pacific Ocean.

As these islands are under the jurisdiction of your Department, I beg in behalf of our Society that you will establish such rules and regulations as will prevent the killing and taking of the resident birds for commercial purposes, and also to prevent the taking of the eggs of the said birds during the breeding season.

I am informed that the Japanese people have been in the habit of visiting these islands for the purpose of killing birds for their plumage.

It is known that during the past few years enormous numbers of seabirds have been killed by the Japanese and have been shipped to the Paris, London, and New York markets for millinery ornaments; among

these birds were great numbers of a very beautiful form of the tern family known as *Gygis alba*.

Our Society is under many obligations to your Department for your hearty coöperation in our work for the preservation of sea-birds, the latest and one of the most notable instances being your order of April 24 *in re* the birds on the Dry Tortugas, Florida.

I am, with great respect, my dear Sir,

Very truly yours,

WM. DUTCHER,
Chairman.

NAVY DEPARTMENT,

Washington, July 3, 1903.

SIR:—

Replying to your letter of the 2nd instant, requesting the establishment of rules and regulations to prevent the killing and taking of the resident birds of the Midway Islands for commercial purposes, and also to prevent the taking of the eggs of said birds during the breeding season: I have to inform you that your letter has been referred to the Commandant, Naval Station, Hawaii, for report. Upon receipt of his report, the Department will advise you more fully in the matter.

Very respectfully,

W. H. MOODY,
Secretary.

ALABAMA.—There is great need of a new bird law in this State. The present law, passed in 1899, seeks to protect quite a long list of birds a portion of the year only, but it is practically valueless, as the provisions of the act do not apply to 60 of the 66 counties in the State. There is no session of the legislature until 1905. There is no Audubon Society in the State, and so far as known no bird students.

At the request of Mr. George W. Carver, Director Department of Agriculture and Experiment Station, Tuskegee Normal and Industrial Institute, a package of Educational Leaflets, Nos. 1 to 4, were sent for him to distribute at the Summer School.

Subsequently he wrote: "I have distributed them among our teachers and they take to them most heartily. I am sure they will do a great deal of good as each teacher will go into a community that has not been touched by them. Trusting I can be of further service to you in pushing this grand movement," etc.

There is a great field for educational bird work in this State; will not some generous reader of this report furnish a fund that will enable the National Committee to send to every teacher in Alabama bird leaflets that will enable them to teach the children in their charge the great economic value of the wild birds.

ARIZONA.—This territory has a very imperfect non-game bird law, although it was passed as late as March, 1901. The next session of the legislature will be held in 1905.

There is seemingly little interest taken in birds or bird protection.

ARKANSAS.—*Legislation.*—No change has been made in the law, which is practically the A. O. U. model. The game laws were improved by non-export and sale clauses. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—There is no organized society in the State, but a great deal of splendid work is accomplished by Mrs. Stephenson of Helena, who is a member of the A. O. U. Protection Committee. She writes:

"Since work of whatever kind is best measured by its results, mine, which is mostly of a personal character, and too often unfruitful, seems hardly worth mentioning. However, as sponsor for Arkansas something must be said.

"Early in the year, the game bills referred to above were presented to the legislature, and after many weeks passed. Later, it was reported that U. S. Judge Trieber (Judge of the Eastern District of Arkansas) had been asked to declare this new law unconstitutional, and that he had done so. In answer to that report he wrote the following letter:

"In reply to your inquiry I would state that I made no decision whatever in regard to the game law. An injunction was asked from me, and to have me declare the game law of the State prohibiting non-residents from hunting unconstitutional, but I declined to do so, stating that perhaps some State Judge could be induced to take that view, but in my opinion the law is constitutional. Thereupon, Senator Clarke did apply to Judge Hughes in Crittenden County, and he declared it unconstitutional. The only thing

I ever did was to grant an injunction, temporarily, to prevent the so-called game wardens, which means the dead beats, acting as constables and deputy constables in Crittenden County, from trespassing upon private lands for the purpose of annoying the negro tenants, but that has been dismissed now for want of prosecution. In my opinion, all game belongs to the State absolutely, and it has a perfect right to prevent anybody from killing, catching, keeping, buying or selling it, shipping or receiving it, and not only that, but the State can allow its own citizens to kill it and still refuse non-residents the same privilege. As to the wisdom of it, that is a matter with which the courts have nothing to do, but if the State expects to preserve any of the game there will have to be a more stringent enforcement of the law than there is at present.

"As to the so-called sportsmen: In my opinion there is very little difference between those residing in the State and those out of the State; they enjoy sport because they can see blood. They care nothing for game for the purpose of eating it, but it is considered a noble sport to kill helpless things; all of which only tends to show that our boasted civilization is a very thin veneering and the least scratch takes it off.

"With some men all you have to do is to yell "sport"; with others, "war"; and still others, "lynching"; but whatever it is when you boil it down it is nothing but the wild animal that is in us."

"By constant watching and complaining when it is violated, I have upheld the protective law for song birds, and am glad to say there is a perceptible increase in their numbers in my field this past year. All work outside has been done through letters and the distribution of literature."

The following sentiment expressed in an editorial in the Helena 'Soliphone' deserves wide publicity: "Let it be the unwritten law of America that no gentleman will kill a non-game bird, and that no lady will allow her hat to be decorated with the plumage of the innocent warblers."

CALIFORNIA.—*Legislation.*—There has been no change for the better in the non-game bird law and no further effort can be made until the next session of the legislature, which will be held in 1905. In the interim, however, a strong public sentiment must be created in favor of the A. O. U. model law. As proposed in the last

annual report, an effort was made for a new law; a bill was carefully prepared, and was introduced and favorably reported by the Senate Fish and Game Committee. Owing to opposition from an entirely unexpected quarter, one in fact that should have given support rather than opposition to the bill, it was not pushed. It was thought better not to have any legislation rather than an unsatisfactory law.

Audubon work.—While no society has been formally organized, a great amount of very valuable bird protection work is being done by interested citizens. California is deeply indebted to Mrs. Josephine Clifford McCrackin of Wrights, for her noble and praiseworthy efforts to preserve the birds and trees of her State. One of her friends writes: "This good woman, one of our earliest literary workers and a former associate of Bret Harte on the old 'Overland Monthly,' despite her age, has done our State more good than a thousand prominent citizens. After having saved several of our noblest groves of redwoods (*Sequoia gigantea*) by having bills passed for their purchase by the State is now turning her attention to the preservation of our beautiful song birds. Her energy is tremendous and she carries through all she proposes to do."

Mrs. McCrackin's story of the 'Ladies Forest and Song Bird Protective Association of Santa Cruz County' is of so much interest that it is given in some detail:

"This Association was organized in December, 1901, through the efforts of Walter R. Welch, Deputy State Game Warden. His successor, C. A. Reed, felt the same interest in the preservation of song birds, and used his influence with the supervisors of this county to make the ordinance protecting birds of some effect, and as each member of our Association became at once an active worker in the cause, the song birds soon returned to their former haunts in the vicinity of Santa Cruz City. It is different in the country, I am sorry to say, though a number of our members live in my immediate neighborhood, in a grape and fruit-growing section, and like myself are convinced that the cherry crop, for which many song birds suffer death, is not in any measure made less by the alleged depredations of the birds that are with us at the time when cherries are ripe, yet the rancher, to his own detriment, with

the instinct of the savage, will persecute and kill every bird that dares to make the county its home.

"From the very beginning our aim and object was to awaken interest and find representation in the public schools, and I was instructed to write individually to each teacher, 109 in number; in most cases I received courteous assurances that kindness to all God's helpless creatures was taught to the children in charge. In the Parochial school, the 'Address to School Children,' which I had written, fell on such fruitful soil that a number of really excellent, thoughtful essays were written by some of the pupils, not one of whom had reached the age of fourteen. The public schools evaded and avoided us, giving as a reason that the teachers were already overburdened with studies. (Many of the teachers, let me say, are members of our Association.) Game Warden Reed had 500 copies of the address struck off, at his own expense, and these have been distributed as far as they would go.

"The 'Pastime' of San Francisco republished some of my earlier articles from the 'Sentinel,' and its successor, 'Western Field,' brought out an article of mine on the subject in its first number.

"The 'Pacific Fruit World' of Los Angeles, readily consented to publish a strong protest I wrote against the barbarous course, pointed out by one contributor, to rid the country of the bird pest to hang wide-mouthed bottles filled with poisoned water up in the trees where the birds would come to quench their thirst.

"Later the 'Breeder and Sportsman,' San Francisco, published two articles 'Save the Song Birds,' in the second of which I spoke in the most uncomplimentary manner of women who still insist on having our best friends, our greatest solace in our quiet country homes, the song birds, tortured and murdered in order to wear this badge of heartlessness on hat or bonnet.

"Having been asked by the Woman's Club of San Jose to speak before the Alliance of Clubs on bird protection I gladly answered the call, as it is most desirable to interest the ladies of Santa Clara County, for the line of that county runs through this part of the Santa Cruz Mountains, and we cannot protect birds in this county when they can shoot across the line from the other county into ours. We of Santa Cruz had made an appeal to the Santa Clara

supervisors to pass a protective ordinance in their county; to which they replied that such an ordinance had been passed in 1896. That it has been a dead letter so far is evident from the fact that that last relic of barbarism, robin pot-pie, is still existent in some households where they choose to believe that no protective ordinance was ever passed.

"What We Purpose to do in 1904.

"If my life is spared, and I am left in my position as President of our Association, I will propose to the members a line of work which shall have for its ultimate object the passing of a protective law by the legislature of California. Our foremost aim must still be the introduction of bird protection and bird study into the public schools. Education is better than prohibition.

"We expect to make a Club effort at the next session of the State legislature, and to work for the forming of a State Audubon society, with one president, and secretaries for the different districts or counties. So much for the State organization. At the present time, or rather with the opening spring, our efforts will be directed toward making it known, and felt, that there is a protective ordinance both in Santa Clara and Santa Cruz counties, and our association must prevail upon the ladies of San Jose, Santa Clara County, to help us. Any person can be appointed Deputy Game Warden without pay in this State; the San Jose Woman's Club will have some member so appointed; I too would seek a like appointment in Santa Cruz county, and together we might succeed in getting the supervisors to have notices printed, to be posted on trees and fences, to the effect that a bird protecting ordinance was in force in both counties.

"I shall make it my duty to write to the people in this State who are interested in bird protection, as one as old as I may venture on writing suggestions.

"Mr. Leonard Coates, an authority on fruit and fruit pests, is our faithful ally, for he is a firm friend of the song bird and has helped protect them.

"I am to address a few lines to the sportsmen who hold their meeting at Paso Robles next month. All the more willingly do I write to them since I wish to make a plea for the better protection

of Mourning Doves, killed off now in this portion of California at a shameful rate. For quail too I will make a plea, though I would hardly venture on this if I did not know that true sportsmen are gentlemen, for I have the honor of being a member, the only lady-member, of the California Game and Fish Protective Association.

"At present our Association numbers nearly fifty regular and over twenty honorary members. We confer honorary membership not only on those who have aided and are kindly disposed toward us, but to those who are indifferent to the cause we sometimes pay a like compliment. An honorary member of a 'bird society' will learn, after a while, to take just a little interest in birds, and see that they are protected.

"Mr. Samuel Leaske, Trustee of the Carnegie Library, has kindly promised that a space shall be set aside in the new library building for our literature, and there will be a reading room for children, where humane literature of every character will be received and kept for the perusal of the little ones.

"The dues of our association are merely nominal, 25 cents. What we ask of our members is that they abstain from wearing feathers on hats or bonnets except those of the ostrich or the chicken, and that they induce their friends to use no other kinds."

Another devoted friend of the birds of California is Mr. W. Scott Way of Pasadena, who is alive to his civic duties and writes as follows: "I shall be very glad to take up, with other earnest workers, the organization of an Audubon society. I have had the thing in mind for some time. I will join anything or go into anything, that is alive, for bird or game protection. I am in the Pasadena Humane Society because it is working on broad lines, and as the bird protection matter is left in my hands you may be sure that that end of the work will not be neglected. I am also working the local Farmers' Clubs for all there is in it in the way of bird protection.

"There is much need of faithful, persistent work here in the way of getting better bird and game laws, and in enforcing those we have. There has been much unlawful shooting in this country during the present month, and the protective association does not seem to have done anything to check it. When the annual meeting is held I expect to 'put up a fight' for better things. In

the meantime, I am ready to take on any new work, that I can possibly undertake, and if you can put me in communication with the right persons I will gladly aid the formation of an Audubon society.

"You will see by the enclosed clipping that I have a county bird protection ordinance in course of preparation. Soon as the local Farmers' Club acts on it I will take it before the supervisors.

"Please send me 100 copies of your Flicker leaflet. I want them for the next Farmers' Club meeting."

The California State Floral Society purchased for distribution among its members and others 1,000 copies of the National Committee Educational Leaflets and its secretary writes: "Our society most heartily approves of your method of education to protect the valuable birds of the country."

COLORADO.—*Legislation.* — During the last session of the legislature the A. O. U. model law was adopted. The next session of legislature will be held in 1905.

Warden work. — No wardens were employed by the Thayer Fund.

Audubon work. — A society was organized during the past year and is now doing effective work. The juniors of the organization have their own officers and manage their own business, with some supervision and advice from the parent society, whose secretary writes of the boys as follows:

"I am very proud of the boys and am confident that the work they are doing will be of much benefit for the protection of the birds of Colorado.

"Their meetings have been held once in two weeks, until lately they have decided that it is best for them to meet weekly on account of the large amount of work they have to do. There are visitors at each session and much encouragement is given to the boys. Mrs. Mackenzie, a prominent teacher of Wyoming, was in attendance at the last two meetings to gain information that would assist her in organizing a like society at her home. Miss West of Pueblo, Colorado, a teacher of much influence in that city, spent an hour with the juniors two weeks ago to secure advice that would enable her to organize an Auxiliary.

"The juniors, which I so justly and proudly claim, have the State

organization, and have decided that all others must be auxiliaries to theirs.

"It is a surprise and satisfaction to many who visit the boys while they are in session to note the very intelligent manner in which they handle parliamentary rules. It has required much of my time to coach them in their work, but I am well satisfied, for they never forget the advice once given.

"The secretary also contributes the following encouraging information: 'If you have any literature to distribute free kindly send some to Mr. Geo. J. Spear, Greely, Colorado. Mr. Spear is one of the directors of our State organization, a prominent fruit grower and nursery man, and has applied for the appointment of Deputy Game Warden without pay, that he may prosecute parties in Greeley who are killing robins.'

"I think I have written you of the Freemont County Audubon Society, organized by the Hon. B. F. Rockafellow, which now numbers considerably over 300 members. There are several auxiliaries organized in the State and all are doing good work."

CONNECTICUT. — *Legislation.* — The A. O. U. model law is in force. Next session of legislature, 1905.

Warden system. — No wardens employed by the Thayer Fund.

Audubon work. — The Connecticut Society is very active, especially along educational lines, as the following extract from the Secretary's report shows:

"We have not a large number of new members to report; about 125 juniors, six teachers and eight other members, besides 700 associate members; these sign a pledge and receive a button, but do not pay or have a certificate. These members do not represent the work of the society; we have in circulation 70 sets of bird charts, and 20 libraries, besides our three illustrated lectures and reading cards. During the past year the society has spent for libraries, bird charts and other educational work \$170.28."

It is pleasing to note the growth of interest in bird protection and allied subjects, as indicated by the proclamation of Governor Chamberlain in setting apart May 1 as Arbor and Bird Day. He says: "The importance of preserving and multiplying forest and shade trees cannot be overestimated, and it is to be feared that we do not fully appreciate the great advantages to be derived from tree

and plant culture. Many of the trees which beautify our grand old State were planted by our fathers—let us, in our turn, plant trees, in whose branches song birds may build their nests and whose grateful shade coming generations will enjoy.

"I further request that the teachers in our schools endeavor to stimulate their pupils to an interest in the study of ornithology. It is surely an imperative duty to impress upon the boys and girls of to-day the sinfulness of robbing birds' nests and snaring wild birds. Such acts of wanton cruelty should not go unpunished."

NORTH AND SOUTH DAKOTA.—*Legislation.*—Non-game bird laws in both the Dakotas are lacking. A few birds are protected, but the present statutes are entirely inadequate. The citizens of these two States, which are so prolific of bird life, should awaken to the necessity for their preservation. The next session of the legislature will not be held until 1905.

Will not the press of these two great agricultural States in the interim awaken the citizens to the value of birds to all classes of agriculture? The National Committee holds itself in readiness to furnish information, on request, to the editors of the Dakotas, regarding the economic value of birds.

DELAWARE.—*Legislation.*—No change in the bird law, the A. O. U. model law being in force.

Warden system.—No wardens were employed under the Thayer Fund.

Audubon work.—The Secretary reports as follows: "The County Superintendent of schools, Mr. A. R. Spaid, gave his bird lecture at Dover during July and succeeded in obtaining the names of 25 teachers as members of the Audubon Society.

"Two arrests have been made during 1903 for shooting robins; the fines and costs in each case amounting to over \$10.00.

"The State Board of Agriculture has expressed its intention of sending literature on birds to the teachers of the Delaware schools and asks their coöperation in distributing it among the children.

"The Society has had copies of the bird laws of the State placed in all the stations of the Delaware railroads, and in all the post offices of those towns and villages where we have members, and permission to post the laws could be obtained.

"Our Society thinks that constant agitation through the press

should be its aim during 1904, and to strive to enroll children as members. It has other work under consideration, but as no definite plan of action has yet been decided on it would be unwise to present it in this report."

A most important and advanced step in bird protection work has been taken in Delaware during the present year in the appointment by the State Board of Agriculture of an Honorary Consulting Ornithologist. The selection of Mr. Charles D. Pennock, a member of the American Ornithologists' Union, to this important position gives assurance that the farmers who listen to his addresses on birds will learn scientific facts of great value to them.

DISTRICT OF COLUMBIA.—*Legislation.*—None. A. O. U. model law in force.

Audubon work.—The Secretary reports as follows :

"This Society was organized for the study and protection of birds. Under the heading of study, the work accomplished has been through lectures, monthly meetings for members, classes for the instruction of teachers conducted by different ornithologists, members of this Society, for which no charge is made. Fifty or sixty teachers have been taught. In these classes illustrations are made by means of bird skins owned by the Society. Classes for popular instruction were held through the spring. These were well patronized and created great enthusiasm, especially the outdoor classes, realizing for the treasury a considerable sum.

"Field meetings were held through April and May for members and their friends, each personally conducted by two or three trained ornithologists. Leading, as they did, through the beautiful woods around Washington, so easy of access, to which was added one water excursion, these meetings are said to be the crowning pleasure of the year's work.

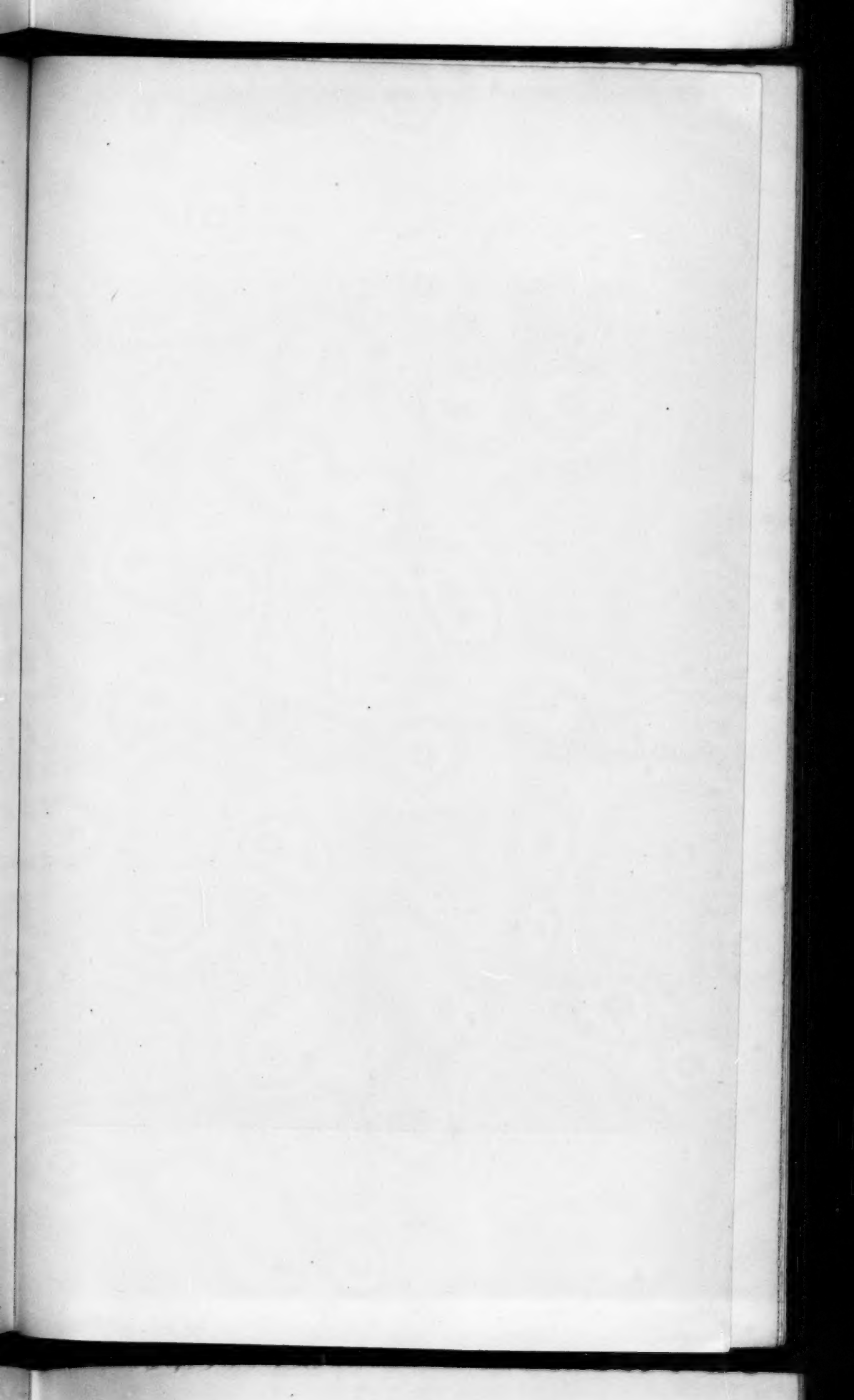
"For the protection of birds, examination of millinery stores has been made by officers of the Society ; coöperation with the Audubon Society of the State of Virginia, to secure the enactment of an adequate law for that State ; coöperation with the game warden of Montgomery County, Maryland, to all of whom copies of our game laws were sent. Occasional examinations of the markets and commission houses revealed no flagrant violation of game laws, and no song birds offered for sale.

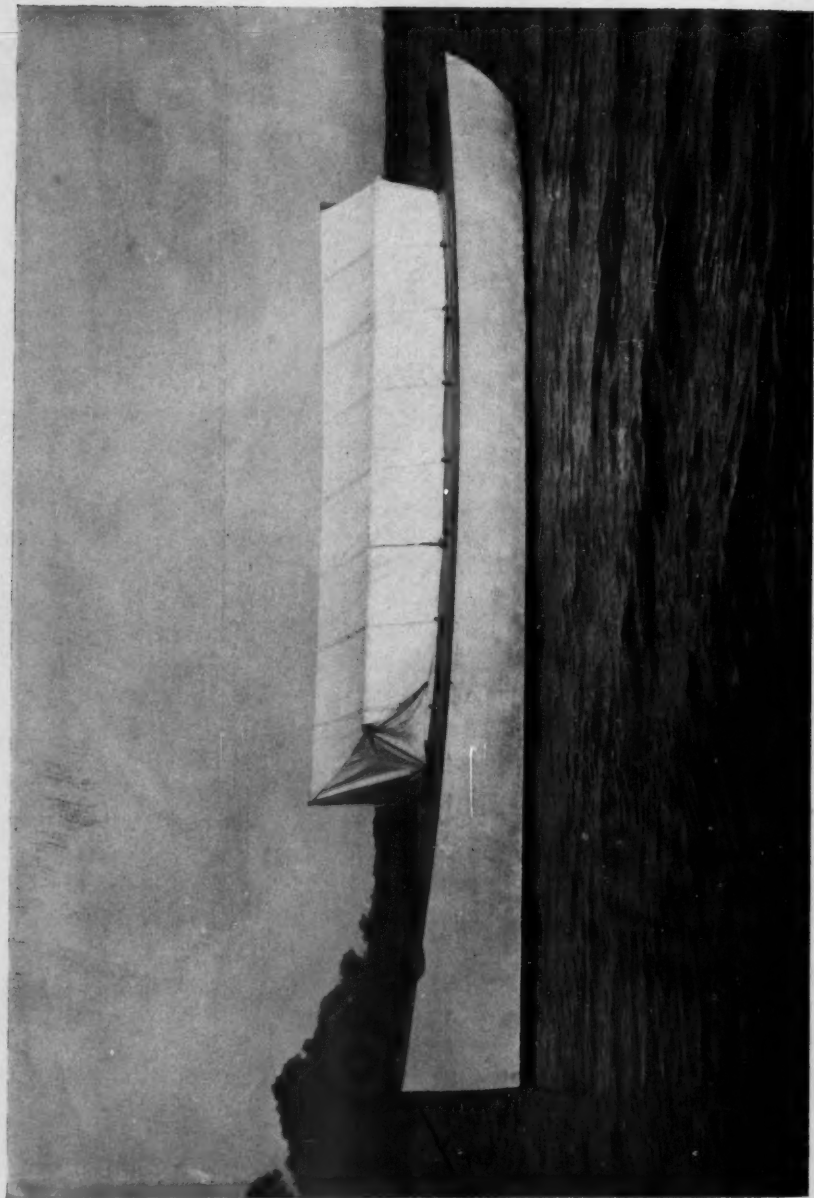
"Protection has been given to two breeding colonies of Night Herons near the Eastern Branch of the Potomac. The existence of breeding colonies so near the city of Washington is of great interest. All sale of grebes in the market has been effectively stopped. The sale of live native birds has been reduced to a minimum. The laws for the protection of birds and game have been generally well observed.

"The Audubon Society of the District of Columbia begins its seventh year with renewed activity. The remarkable spread of bird protection sentiment manifested in the greatly increased interest in nature books and nature study, the rapid growth of bird-protective legislation, and the organization of new societies throughout the land, is both gratifying and stimulating. The ready response of the people to organized effort clearly indicates that energy and persistence are alone needed to awaken that enthusiasm through which protection of the birds becomes an assured fact. The District Society, which has so well borne its part in the past, purposes to conduct a yet more vigorous campaign during the coming year."

FLORIDA.—*Legislation.*—The A. O. U. model law is still in force, although it had a narrow escape from a serious amendment. Fortunately through the vigilance and very active work of Mr. R. W. Williams, Jr., the Florida member of the A. O. U. Protection Committee, the amendment was killed in the Senate after it had passed the House.

The amendment was known as House Bill No. 561 and was introduced by Mr. McNamee of Hillsboro, as follows: "A bill to be entitled an act to exclude that certain family of sea fowls called the tern family from the provisions of all statutes forbidding the killing of plumage birds and providing penalties for a violation for said killing." It was referred to the Committee on Fisheries, which reported it favorably. Mr. McNamee stated in his speech for the measure in the House, that "these birds were a nuisance to man and destroyed the fish industry in Florida; that their pelts were of commercial value and there is no reason why the citizens of Florida should not be allowed to reduce them to money." He also said: "No one knows from whence they come, they are only with us a short time, and it is senseless to protect them." The bill





LAUNCH 'AUDUBON' USED BY WARDEN IN SOUTHERN FLORIDA.

passed the House by a vote of 32 yeas to 26 nays. In the Senate the bill was referred to the Judiciary Committee, on motion of Senator Harris of Key West, where it remained when the legislature adjourned on June 5. This narrow escape forcibly emphasizes the fact that every legislative session must be closely watched in order to prevent the assaults of the ignorant and perhaps the venal. As there will not be another session of the legislature until 1905, the present excellent bird law will remain unchanged until then.

Warden work.—In the report for 1902 the Chairman urgently recommended the purchase of a naphtha launch for the use of the warden who has charge of the district at the extreme southern part of the Florida Peninsula, and the thousands of Keys and small islands in that section. The Executive Committee of the Florida Audubon Society promptly took the matter in hand, with the result that a special fund of \$300 was raised, and a seaworthy launch 23 feet long, with a 3 horse-power engine was specially built and is now in daily use. The boat is capable of making seven miles per hour, and has traveled hundreds of miles since it went into commission shortly after May 1. The boat bears the name of the great artist-naturalist 'Audubon,' and is the property of the Florida Audubon Society and is loaned by them to the National Committee for the use of warden Bradley, who is paid for his services by the Thayer Fund.

Four paid wardens are employed in Florida. Paul Kroegel has been placed in charge of the Pelican Island Reservation on Indian River. As stated in the report for 1902, the Committee thought it very important that this interesting island should be purchased in order that perpetual protection should be given to the colony of pelicans that had so long made it a breeding place. After many months of effort and an expenditure of considerable money in surveys and other necessary red-tape, an appeal was made to the President of the United States, through the U. S. Department of Agriculture, to have Pelican Island set aside as a public reservation. President Roosevelt, with his well-known promptness in all matters relating to the preservation of wild life, issued the following order:

WHITE HOUSE, March 14, 1903.

It is hereby ordered that Pelican Island in Indian River in section nine, township thirty-one south, range thirty-nine east, State of Florida, be, and it is hereby, reserved and set apart for the use of the Department of Agriculture as a preserve and breeding ground for native birds.

(Signed) THEODORE ROOSEVELT.

Pursuant to this order the Secretary of Agriculture appointed as the Keeper of the reservation Mr. Paul Kroegel, the warden employed by the Thayer Fund.

(Copy.)

April 4, 1903.

Mr. PAUL KROEGEL,
Sebastian, Florida.

SIR :—

Under an order signed by the President, on March 14, Pelican Island has been reserved as a breeding-ground for native birds under the charge of the Department of Agriculture. This island, as you are aware, has been under the care of the Committee on Protection of Birds of the American Ornithologists' Union for the last two years. For the present the Committee will coöperate with the Department in preserving the birds, and upon recommendation of the Chairman of the Committee you have been appointed as Warden in charge of the reservation.

No shooting will be allowed on the island or in the vicinity and no one will be allowed to land on the island without permission from you or from this department. Any infraction of this rule should be reported promptly with a statement of your action. You should make every effort to make the fact generally known that the object of establishing this reservation is to preserve the pelicans, and you should strive to secure the coöperation of the public so that the birds may be protected, not only on their breeding grounds but also after they leave the island.

Respectfully,

(Signed) JAMES WILSON,
Secretary.

Two large signs were painted and placed at the edge of the island where all who approached could not fail to see them, the signs reading as follows :

U. S. DEPARTMENT OF AGRICULTURE.
PELICAN ISLAND RESERVATION.

(Established by Executive Order, March 14, 1903.)

NO TRESPASSING ALLOWED, NOR FIREARMS PERMITTED ON THE ISLAND.
THE BIRDS MUST NOT BE DISTURBED.

PERSONS DESIRING TO LAND MUST OBTAIN PERMISSION FROM THE
WARDEN AT SEBASTIAN.

By order of

JAMES WILSON,
Secretary of Agriculture.

The fact that this island is a reservation was advertised in the local press and the result has been most satisfactory, as the following report made by Mr. Kroegel shows :

Sebastian, Fla., Aug. 25, 1903.

Department of Agriculture, Biological Survey,
Dr. C. Hart Merriam, Chief of Division.

DEAR SIR :

By request of Mr. William Dutcher, of the American Ornithologists' Union, I beg to report that the nesting season on the Pelican Island Reservation is now over. It has been one of the longest seasons known, commencing Dec. 1st and ending July last. During the season there have been between three and four thousand young birds raised, as near as I could judge. I have endeavored to carry out the rules laid down for the protection of the island to the best of my ability, and am glad to say that I have been fairly successful in preventing trespassing. Of course the amount at present available will not allow me to keep as close a watch on the island as should be, but the mere fact that some one has the oversight of the island is enough to prevent serious depredations. I will of course keep an eye on the island until nesting starts again, so that what birds remain near the island will not be molested.

Yours respectfully,

(Signed) P. KROEGEL.

The following letter from Mr. C. W. Beebe, of the New York Zoölogical Society, under date of New York City, Sept. 30, 1903, confirms the report of Warden Kroegel. He says :

"Let me congratulate you on the success attending the protection of the Brown Pelicans at their breeding resort on Pelican Island in the Indian River, Florida.

"I visited the Island in February of the present year and found the warden alert, warning notices posted, and the birds fearless and greatly increased in numbers, both on the island and especially in the neighboring overflow colonies."

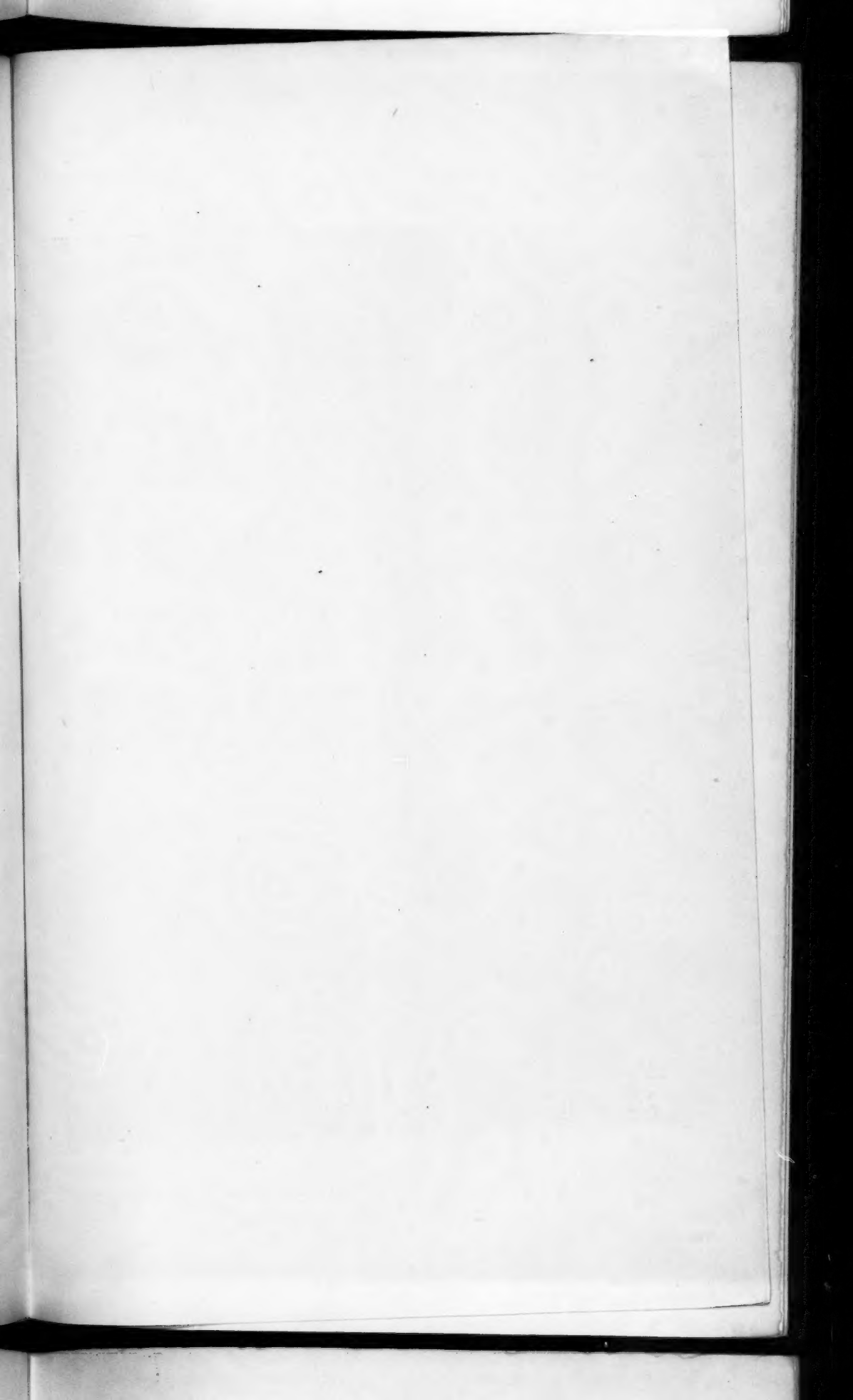
Capt. C. G. Johnson, Keeper of the Sand Key Lighthouse, was re-employed for the past season. He reports that the three species of terns breeding at his station had a most favorable season and that no eggs were taken nor old birds shot. From a description of the three sizes of terns breeding on this Key, sent to me by Mr. Johnson, I suspect that the one he calls "Kill-em-Peters" must be the Least Tern (*Sterna antillarum*). They numbered this year at the close of the season some 3,000 birds, and it is therefore one of the largest colonies of this species remaining in the United States, and is deserving of special protection, from the fact that on the Atlantic coast the Least Terns more nearly approached extermination than any of the other species.

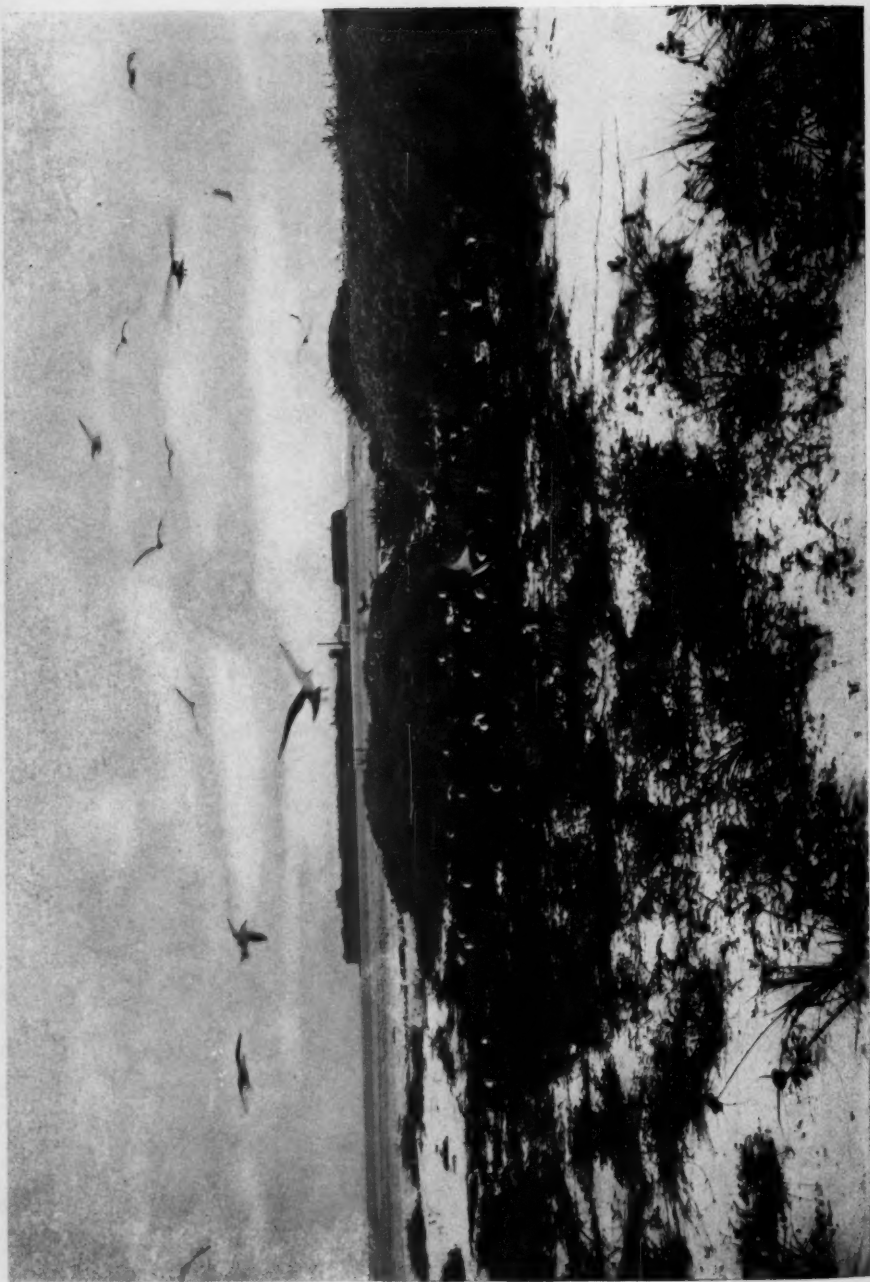
That the large and important colonies of Noddy and Sooty Terns breeding upon Bird and other Keys, in the Dry Tortugas, should again have protection, application was made to the Honorable Secretary of the Navy for permission to establish a warden on Bird Key. In compliance with this request the following order was issued :

U. S. NAVAL STATION,
Key West, Fla., April 24, 1903.

ORDER.

By direction of the Secretary of the Navy, and in deference to a request by the Chairman of the Protection Committee, North American Birds, American Ornithologists' Union, New York City, in the State of New York, all persons connected with the Navy of the United States or the Marine Corps, or citizens of the United States, temporarily in the vicinity of each, any, or all of the islands, keys, or above-water shoals in the group geographically called Dry Tortugas, are hereby prohibited from disturbing, during the nesting period, any sea birds, such as sooty and noddy terns, on the small island known as Bird Key; and all persons, whether foreign or domestic, are hereby prohibited from taking eggs from any non-domesticated birds from any of the islands, keys or shoals of the Tortugas group. It must be understood that the molestation of birds by





BIRD KEY, FLORIDA, PROTECTED TERN COLONY. (Fort Jefferson, Garden Key, in distance.)

word or gesture, or by the use of any weapon, trap or missile, or device whatever, is in violation of the law of the land, except at certain times and under certain circumstances strictly defined by law.

(Signed) GEORGE A. BICKNELL,
Captain U. S. N., Commandant.

Thereupon Mr. W. R. Burton was appointed special warden and was directed to proceed to and remain on Bird Key.

The following letter of instructions was given the warden :

This is to certify that the bearer, Mr. W. R. Burton, is the duly authorized representative of the American Ornithologists' Union.

He is appointed by the said Society for the purpose of protecting the birds that breed on the several keys in the Dry Tortugas.

The said warden, has the permission of the Hon. Secretary of the Navy, to camp upon any of the keys or islands of the Dry Tortugas for the purpose above stated.

The said warden is directed to report to the Commandant of the Naval Station at Key West for transportation to the Tortugas and on his arrival at the Tortugas is to report to Lieut. R. B. Sullivan, U. S. M. C., Commanding the Marine Barracks, Dry Tortugas, Florida.

The said warden, Mr. Burton, is instructed to enforce the law of the State of Florida, which makes it a misdemeanor to take the eggs of any breeding bird, or to disturb them in any manner, or to kill them at any time.

The said warden will report his arrival at the Tortugas to the undersigned by letter, and will follow such further instructions as he may receive from time to time.

By order of the American Ornithologists' Union.

(Signed) WILLIAM DUTCHER,
Chairman of the Protection Committee.

Mr. Burton made the following interesting report at the close of the season, July 15, when he left the Tortugas :

DRY TORTUGAS, July 15, 1903.

I arrived at Bird Key on June 19, in company with Mr. Herbert K. Job; I found that the birds had been laying some time, and that some eggs had been taken; there were probably 200 eggs on the ground when we arrived; the birds continued to lay until as late as June 15, in considerable numbers. It was impossible to count the eggs on account of the manner in which the Sooties lay; they deposit their eggs on the ground without any attempt to build a nest, and a great many lay on the open beach without any cover of any kind, but the majority deposit their eggs

under a clump of grass, weeds, or the cedar bushes with which the key is nearly covered. Mr. Job and I estimated that there were about 3,600 of the sooties and about 400 noddies, but as a great many eggs were deposited after he left, I think there must have been at least 5,000 of the sooties and 600 noddies. There are no other birds that nest, although the man-o'-war birds roost there; there were about 300 of them, but they do not molest the gulls in any way, nor do they eat the eggs or young, as reported; the gulls easily drive them away when they wish, as they can whip the man-o'-war birds easily. I did not see a single crow while I was at Tortugas, nor are there any animals of any kind on Bird Key to eat the eggs or young. The only enemy they seem to have are the sea and land crabs with which the island is infested; they undoubtedly eat a great many eggs.

The birds are partly protected by the efforts of Capt. Geo. A. Bicknell, Commandant of the Naval Station at Key West, of which Tortugas is a part; he is a fine officer and has done everything he possibly could to assist me in protecting the birds. An order was posted by his direction at the Fort and the Key, prohibiting any one from landing without special permission. If the terns are protected during the time that they are laying and until the eggs hatch, they will increase very fast, as the mortality is very small.

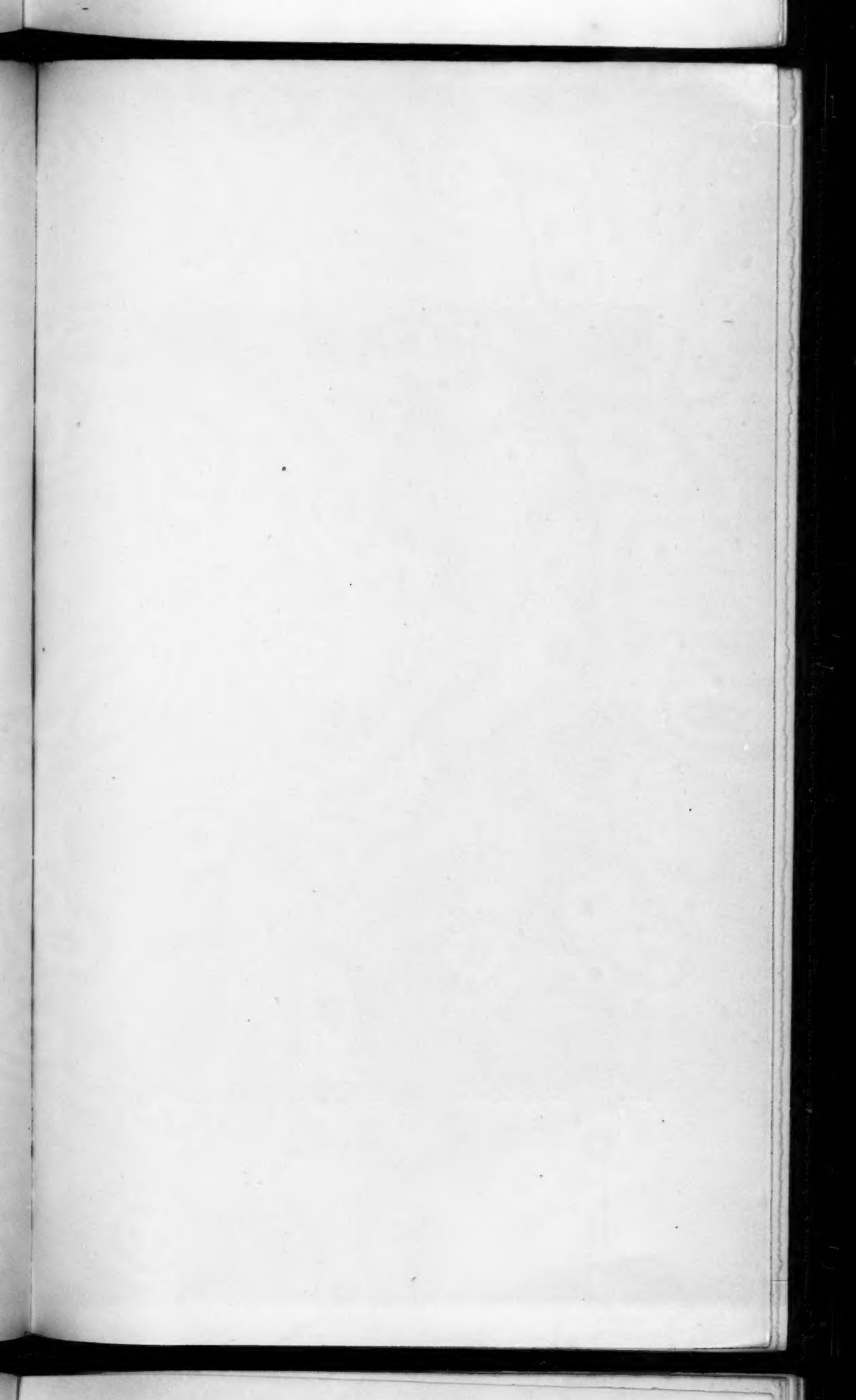
The birds arrive at the Key about the middle of April and leave from August 15 to the first of September; I am told that they all leave at one time and in the night. The eggs were all hatched on the date I left the Key, July 15.

Our fellow member, Rev. H. K. Job, who accompanied Mr. Burton, supplements the statements of the warden in the following letter:

I went with Mr. Burton, the new warden, to Bird Key, Dry Tortugas, arriving there May 19. I was with him the first four days of his stay, instructing him in scientific observation and in photography.

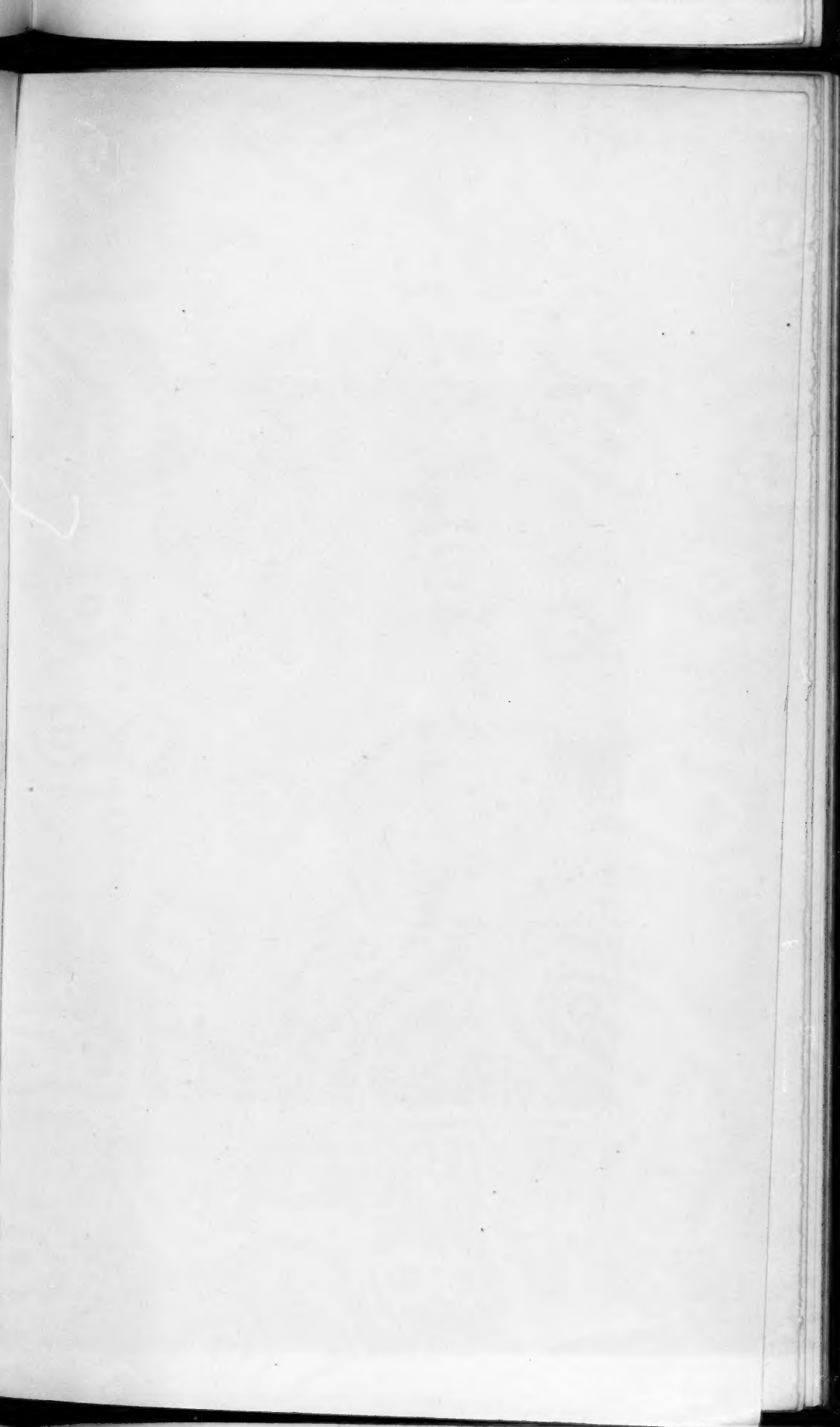
There are two species of birds breeding, the Sooty Tern and the Noddy. The former are by far the more abundant, numbering, at a guess, five to six thousand. Of the Noddies, I should say, there were hardly a thousand. There were also some Man-o'-war Birds resorting to the key, but not breeding.

At the time of our arrival, most of the Noddies had a fresh egg in each nest, and perhaps about half the Sooty Terns had also a fresh egg. Some eggs had already been taken, it was said, by a party. This, however, did no damage, for by the end of my stay, the 22nd, nearly all seemed to have laid, and they were protected thereafter. No noddy had more than one egg, and in only three of the Sooty Terns' nests, out of thousands inspected, did I find as many as two.





SOOTY TERNS ON BIRD KEY, FLORIDA. PROTECTED COLONY.





SOOTY TERN AND YOUNG, BIRD KEY, FLORIDA.

The nests of the Noddies possibly could be counted, being built upon the bay cedar bushes, but to accurately count those of the Sooties, on the sand under this thicket, would be next to impossible.

The opportunities for bird-photography upon Bird Key are simply amazing. The Noddies are perfectly fearless, and the Sooty Terns, though more nervous, are yet very tame indeed. I could focus, even upon the latter, on their nests, at a distance of only three or four feet.

As the warden will be able to make a more complete report, I will not attempt to describe the habits of the birds.

Upon my return, stopping at Key West, I called upon Commandant Bicknell, in command of the Naval Station. He was very kind, expressing sympathy and great interest in the work of bird protection, regretting that many of the people of Florida seem "determined to make of their beautiful State a lifeless, treeless desert as fast as they possibly can," and promised to do all in his power to prevent this sad issue.

I also made a tour through the Key West markets, and found one stand, kept by a negro, where eggs of the Sooty Tern, locally called "Egg Bird," were on sale, at 15 cents a dozen. The man had only a few dozen on hand, and *said* they were brought from the Bahamas.

During my short stay on Bird Key warden Burton stopped several parties of marines from the fort in attempts to gather eggs, and was doing his work faithfully and intelligently, entering into the spirit of it.

Bird lovers will profoundly sympathize with him in the tragic death of his little son upon the lovely key, sacrificed in the cause of bird protection.

Respectfully submitted,

HERBERT K. JOB.

Our warden in Monroe County, Mr. G. M. Bradley, has been continuously employed since the last report, during which time he has cruised hundreds of miles along the coast and among the keys where thousands of birds still breed. He has also patrolled on foot the swamps where boats could not penetrate. On one occasion he just escaped being bitten by a large cotton-mouth moccasin snake. He has every part of the territory under his care posted with warning notices and has watched and warned many boat loads of cruising tourists and hunters. Many visits have been made to the city and island of Key West, which is in Monroe County, although it is over 70 miles from his home. His excursions have extended as far north as Chokoloskee on the border of Lee County, 60 miles away, and eastward his patrol has extended to Key Largo. There is no doubt that it is well known in all that district that a deputy sheriff is continually on the lookout for game and bird law violations and the moral effect is excel-

lent. Prior to June all of the wardens' journeys were made in a row or sailboat which was found to be too slow to be effective. Since that date Mr. Bradley has been using the launch 'Audubon' which was provided by the Florida Audubon Society. His movements now are much more rapid and plume hunters could not escape arrest should any come into his territory.

In May two members of the American Ornithologists' Union, Messrs. H. K. Job and A. C. Bent, visited this section of Florida to study and photograph birds and while there spent a great deal of time with our warden. At the request of the Chairman they reported on the condition of bird protection work in Monroe County. The report is so interesting and valuable that it is embodied herewith.

MY DEAR MR. DUTCHER: —

In response to your request we will try to briefly describe the conditions as we found them, in southern Florida this spring. Under the guidance of your wardens, Messrs. Guy M. Bradley and Wm. R. Burton, we visited and inspected during April and May, quite thoroughly, nearly all the principal rookeries in southern Monroe County, from Whitewater Bay and the everglades southward to the coast, and on the mangrove keys from Cards Sound to Indian Key and Cape Sable.

Our first trip, two miles inland to Bear Lake, served to locate a small rookery of Wood Ibises, consisting of about 20 nests, from 12 to 15 feet up in the tops of red mangroves, on a small island. The nests at this time, April 27, all held young birds of various ages. In order to reach this rookery Bradley had to carry our canoe on his back for two miles through a thick tangle of mangrove forest, which is enough to discourage the average native nest robber.

It required three days of hard work to visit the big rookery at Cuthbert Lake, which lies about seven miles inland, nearly on the edge of the everglades, and can be reached only by laboriously poling and sculling a small skiff through a chain of six lakes connected by narrow, tortuous creeks, overgrown with a thick tangle of red mangroves. The rookery itself is a mangrove island of less than two acres, on which we estimated that there were at least 4000 birds nesting. About one half of the colony were Louisiana Herons, of which fully three quarters had young of various ages on May 1. The White Ibises of which we estimated that there were about 1,000, were just beginning to lay and had from one to three eggs in each nest. There were about 600 Florida Cormorants, about 200 Anhingas, and about 100 Little Blue Herons in the colony, all of which had nests with eggs and with young. We counted 18 American Egrets, and found their nests with eggs, as well as with young of various ages, some of which were

nearly grown. We also counted 12 Roseate Spoonbills, as they left the island, but found only three of their nests, two with eggs and one with two young birds less than half grown. A small flock of Wood Ibises flew from the rookery when we arrived, but we found none of their nests. A few Everglade Kites came here to roost at night.

But even this great rookery was far surpassed by one discovered in an almost impassable morass at Alligator Lake, about four miles inland from near Cape Sable; the mangrove islands, on which the birds were nesting, were well protected by impenetrable jungles of saw grass, treacherous mud holes, and apparently bottomless creeks of soft mud. The various species of the Heron family were nesting here in countless numbers, White Ibises, Louisiana Herons, Roseate Spoonbills, Snowy Herons and American Egrets; there was a perfect sea of nests and hosts of young birds in all stages of growth, most of them being hatched at this time, May 16; but the area was too vast and the traveling too difficult to arrive at any accurate estimate of their numbers or relative abundance. We were able to spend but one afternoon in the actual rookery and could get to but a small part of it. Wood Ibises were probably nesting beyond where we penetrated, and possibly other species.

Among the small rookeries we found a few things of special interest, notably a small colony of half a dozen pairs of Great White Herons, nesting on one of the smaller mangrove keys; the nests, on April 29, all held young birds, some just hatched and some fully grown.

These birds are common among the Keys and we frequently found nests of this species and Ward's Heron from which the young had flown. Both of these species are extremely wary and do not need much protection.

On a large, partly sandy key we found a colony of Laughing Gulls preparing to breed; also a breeding colony of about 40 pairs of Least Terns, a few Wilson's Plovers, and a few Black-necked Stilts, all of which had fresh eggs on May 8.

A flock of about 100 Black Skimmers constantly frequented a flat, muddy island in one of the bays, but we could find no evidence of their breeding.

We made a special effort to locate the breeding grounds of the Man-o'-War Birds, which were everywhere abundant among the Keys, but were unsuccessful. We discovered several of their roosts, one of which contained from 1,000 to 1,200 birds. We were forced to conclude that they do not breed in this region at all or that they breed at a much earlier or a later date.

In Southern Florida, as elsewhere, the plume hunters have done their work thoroughly, but there is not much to be feared from them in the future, simply because there are very few desirable plume birds left for them to hunt. The American Egrets and Snowy Herons are so reduced in numbers that it does not pay to hunt them. There are, however, a few of these birds still left in nearly all of the less accessible rookeries, so that,

under adequate protection, they ought to increase sufficiently to partially restock their former haunts.

The Louisiana and Little Blue Herons, particularly the former, are still very abundant and as they are not sought after by plume hunters, they will continue to hold their own for a long time to come.

The White Ibises are still very abundant, but as they are killed in large numbers by gunners in the winter and the young are much sought after by the natives for food, they need protection.

The Roseate Spoonbills are steadily decreasing in numbers from the same cause and certainly need most stringent protection to save them from extinction. Their breeding grounds are restricted to the most inaccessible localities from which they can be very easily driven by persecution; their beautiful plumage makes them attractive prey for the sportsmen and tourists.

You are certainly fortunate in your selection of wardens for the protection of this inaccessible region, and it would be hard to find better men for this work than Messrs. Bradley and Burton. The rookeries are so widely scattered and traveling is so difficult, either on land or water, that it is almost impossible for two, or even three, men to cover this whole region at all thoroughly. The native conchs and negroes, many of whom are desperate characters, can, by watching the wardens' movements, visit the rookeries with impunity and make wholesale depredations on the young herons, ibises and even cormorants for food. Several expeditions of this kind have already been broken up by the judicious employment of negro spies, who have kept the wardens informed.

The most effective work against the plume hunters can be done by working against the purchasers of plumes, thus destroying the demand, rather than against the hunters themselves, who are expert woodsmen and very difficult to catch. All of the principal rookeries and roosts have been thoroughly posted and whenever we went to explore a new one, Bradley always carried a supply of warning notices, which he nailed to trees or stakes in conspicuous places.

The natives are beginning to realize that the birds are to be protected, and that the wardens are fearless men who are not to be trifled with.

The Bradleys have the reputation of being the best rifle shots in that vicinity and they would not hesitate to shoot when necessary. The Bradleys and Burton together would be more than a match for any party they are likely to meet.

A power launch of light draft would aid them materially in moving about quickly, as many days are wasted in trying to beat through the narrow channels in a sail boat.

We sincerely hope that no efforts will be spared to thoroughly protect these rapidly diminishing colonies of interesting water birds, some of which are not to be found elsewhere within the limits of the United States.

Very truly yours,

A. C. BENT.

HERBERT K. JOB.

Audubon and Educational Work.—The report of Mrs. Kingsmill Marrs, Chairman of the Executive Committee, gives in detail the activities of the Society for the past twelve months.

"I can report progress for the year in increasing membership by which the work has spread into eleven new counties; much interest has been aroused in the State which we hope will help the introduction of Nature Study, including bird study, in certain grades of schools. This matter is left optional with County Boards, but its adoption and incorporation in the "State Course of Study" is a cause for congratulation considering the antagonistic attitude by many toward bird protection three years ago when the society was founded.

"There should be no feeling of discouragement if our membership does not increase as rapidly as like societies in other States. Present membership, 656; gain in the year, 256. Leaflets distributed, 3,500.

"Warning notices sent out, 250 exclusive of those posted in post-offices and those placed by courtesy of the Southern Express Company in its offices. Local secretaries, 8. Massachusetts Audubon Charts, 15, in charge of local secretaries who lend them to schools. During the summer vacation several charts have been retained for bird classes. Four prizes were given, at close of school year in Orlando, to children of ten or twelve years for bird chart compositions; the list for competition was open to any school using the chart, but few teachers interested their pupils, fearing local prejudice against bird protection. We have 53 teachers as members; 36 have joined the past year.

"Some 300 letters have been sent to members of the Legislature, horticulturists, agriculturists, principals of schools and individuals, with educational or statistical leaflets. Many articles have been written on bird protection, bird study, and the value of birds to farmers and fruit growers; these have been published in the 'Times Union' by the courtesy of the editor, Mr. Wilson, in 'The Agriculturist' by Mr. Painter, and in 'The Southern School and Home.' Frequent editorials, the value of which in reaching homes where our leaflets might not, are greatly appreciated. Money to the amount of \$300 was chiefly subscribed by members of the Society for building a naphtha launch for the use of the game

warden in Monroe County. Contributions have also been given by various members and friends of the Society to defray the salary of the warden at Cape Sable from September to December, otherwise a most efficient and valuable man could not have been kept at his post, owing to lack of money in the Thayer Fund. A more liberal support of the Thayer Fund is urged.

"The Florida State Federation of Women's Clubs have a sub-committee for the preservation of birds, and its chairman, Mrs. Graves, has done efficient work at Greencove Springs and Ormond, our Society helping by leaflets, charts, etc.

Thanks are due to our vice-president, Mr. R. W. Williams, Jr., of Tallahassee, who has rendered our Society and the State most efficient aid toward bird protection, and for the efforts of Mr. W. N. Sheats, State Superintendent of Instruction, in behalf of 'Nature Study for Schools,' whereby the introduction of bird study is now a possibility."

Mr. R. W. Williams, Jr., the Florida member of the A. O. U. Protection Committee, says: "The sentiment against the useless slaughter of birds in my State is growing and I believe I foresee an awakening to the true value of our avifauna. I was delighted to receive information, a short time since, that 'bullbat' shooting had almost entirely ceased in my county. I wrote a very strong letter of condemnation of the practise to an influential friend in Tallahassee and requested him to use his utmost efforts to discountenance the 'sport.' I was greatly pleased and gratified to receive an assurance that he would do all in his power to discourage it. This, coming as it does from an old offender, is cheering.

"During the last session of our Legislature in April and May, 1903, persistent effort was made to exclude from protection the terns. Through the earnest effort of Dr. DeWitt Webb, a representative of St. Johns County, we were able to defeat the measure in the Senate, notwithstanding its passage by the House. I would be ungrateful if I did not also acknowledge with gratitude the splendid service of Hon. W. Hunt Harris, the senator from Monroe County, without whose assistance the bill might have passed the Senate. The vote in the House was astonishingly encouraging to those interested in bird protection, for, while the bill passed that body, the minority vote nearly equalled that of the

majority. It demonstrates the lively interest that is taken in bird protection, even by men who ordinarily would vote for a bill at the request of a fellow legislator when doing so would in no way reflect upon them in the eyes of their constituents.

"During the year a prosecution was instituted in Jacksonville against a young man for removing some young mockingbirds from their nest. The prosecution was based upon a mistaken set of facts and was forthwith dismissed. The young man, instead of removing the birds from the nest, was endeavoring to replace them, a sudden gust of wind having dislodged them. This, too, demonstrates some progress in protection.

"The Florida Audubon Society is very active and is accomplishing a great work in the right direction, *i. e.*, educating the people to the value of birds; the time is not far distant when the subject will form part of the school and college curriculum.

"Progress in this direction must be slow. Prejudices and instincts of generations must be overcome; all the signs, however, are encouraging."

GEORGIA.—*Legislation.*—After a long, hard fight, extending over three legislative seasons, the A. O. U. model bill became a law by approval August 15, 1903, but by its own provisions does not go into effect until January 1, 1904. In addition to the non-game bird law the game law was greatly improved by materially shortening the open seasons.

Warden system.—No wardens were employed by the Thayer Fund, but during the coming season it is proposed to extend the system on the Georgia coast to all localities where birds are found breeding in colonies of such size as to warrant the necessary expenditure.

Audubon work.—In June last Dr. E. E. Murphey, of Augusta, wrote the Committee as follows: "Within the last few days I have been approached by several of the most influential and prominent people of our city in regard to inaugurating the Audubon movement here. I believe that the time is ripe for us to do this and trust that within a very few weeks you may shade Georgia on your map."

Later a letter was received from Prof. Starnes, of the Experiment Station, saying, "I shall endeavor to push matters on to a

thorough organization. I am so greatly interested in the subject, and feel so strongly the importance to the agricultural interests of the State of a working Audubon Society, that I cannot cut adrift until one is fairly underway. Do not conclude, therefore, that nothing will be done in Georgia to further the cause, if we appear somewhat inactive for a while. Our efforts shall now be directed to getting the Mourning Dove transferred from the game list, and the Meadowlark from the proscribed list to the protected list."

The above interests coalesced, resulting in the organization of a society which already numbers among its members some of Georgia's best and most public spirited citizens. There is a great work for them to do which will need all the push and energy that can be gathered together. One of the most important activities of the Society will be to see that the provisions of the two new bird and game laws shall be presented by the Judges of the Superior Courts to the Grand Juries at each regular term of said courts. A second and no less important matter is to see that large numbers of the educational leaflets issued by the National Committee are distributed throughout the State among the agriculturists, the press, and especially among the schools, in order that the public may be fully instructed regarding the great economic value of the birds of Georgia.

HAWAII.—The following letter from Mr. Henry W. Henshaw, a Fellow of the American Ornithologists' Union, gives a clear and interesting outline of bird matters in the Hawaiian Islands. He says:

"Yours at hand. I framed a bill for the protection of the island birds, which was practically an embodiment of the A. O. U. model law. Unfortunately it failed of passage, being killed by the sportsmen of Honolulu, or more particularly by one sportsman. This was particularly exasperating, as in framing the statute I kept specially in mind the needs of the sportsmen, well knowing that without their approval it was hopeless to present the bill. Had I been in Honolulu I have no doubt the bill would have become a law, as it was probably through a misapprehension of the facts that any opposition to the clauses affecting game birds developed.

"I may attempt another bill, practically the same one, this

session, but not unless I can be down there to explain away any opposition. However, I must say that the passage of a law for protection is not of so much importance in the islands as would appear, simply because its provisions cannot be enforced. Game wardens are quite out of the question. There is no money to pay them, and practically very little game to preserve or to regulate the shooting of. The small insectivorous birds, which it is of the greatest importance to protect and preserve, all live in the remote and dense, uninhabited forests, where surveillance is impossible. Nevertheless the fact that there is a law with penalties for infraction is of itself a certain though insufficient protection, and can be invoked in such extreme cases as the collection of birds for millinery purposes.

"The most hopeless feature of the whole business is the undoubted fact that Hawaiian birds are fast dying out from some one obscure cause or from a combination of causes. There is now, so far as I can ascertain, no indiscriminate killing of the native birds, and very few are sacrificed by the leis hunters. Under similar conditions our birds would increase fast enough, but both large and small are disappearing and no one has suggested an adequate cause. About five years ago Perkins collected in a certain locality in Kona, where he found three rare species to be quite common while the commoner species were in swarms. He says the locality was simply a bird Paradise. Last year I visited the place, in which probably a gun has not been fired since Perkins was there. Ten days of the most careful search failed to discover a single individual of either of the three species, and the common birds were anything but abundant. It was a cattle range in Perkins's day and is now, and the only change I was able to note was an abundance of the Mynah which in Perkins's time was probably not there at all. Yet the Mynah, so far as I can see, does not meddle with the native birds.

"I have gone into this subject at some length in my recently published 'Birds of the Hawaiian Islands,' though about all I say is that I do not know anything about the matter.

"So it is a bit discouraging to try and frame laws for the protection of birds from men when, as a matter of fact, they require to be protected from an unknown enemy rather than from man."

IDAHO.—*Legislation.*—The non-game birds of this State have no legal protection whatever. Next session of the legislature, 1905.

Audubon work.—There is no organized society at the present time, although quite recently the Committee received an inquiry from a citizen in Weippe asking for information regarding Audubon work and method of organization.

ILLINOIS.—*Legislation.*—No change in the non-game bird law. The A. O. U. model law is in force.

At the session of the legislature last winter the game laws were amended so as to prohibit the shooting of Ruffed Grouse and Prairie Chickens for four years. Another amendment prohibits the sale of Illinois killed ducks, and limits the bag which any one man may make in a day.

Warden system.—No wardens were employed by the Thayer Fund. However, the State game wardens are very active and there have been a number of prosecutions of men who have disregarded the Prairie Chicken law. Fines were inflicted and a salutary lesson taught. One Chicago millionaire who went to the scene of his shooting in an automobile was captured on the way back with Woodcock in his possession. It was before the opening of the season and the man was fined.

The small boy has been taught to respect the song bird in Illinois. It is the Italian workman who is the worst offender. He goes out Sunday and shoots everything in sight. Many of these Italians have been caught and fined, but their fellow countrymen are slow to learn a lesson.

With the exception of one dealer, the bird sellers of Chicago have ceased to traffic in native American birds. The one offender was fined heavily at one time but he still plies his trade, though he does it half secretly. It is more than probable that ere long a means will be found to put an end to his illegal business.

Audubon work.—Mr. E. B. Clark, the Illinois member of the A. O. U. Protection Committee, says: "The year in Illinois has been marked by an increase of interest in the preservation of bird life fully as great as in any year since the phenomenal change in public sentiment regarding bird protection which took place a few years ago. The agreement with the millinery manufacturers

is shown to have had excellent results. There is an almost utter absence of gulls, terns and other protected birds from the hats shown in the great stores where the women in Chicago and of the country round about do the greater part of the purchasing.

"The gulls and terns have been unusually plentiful during the fall migrations along the west coast of Lake Michigan. I have seen more Bonaparte Gulls than during any season for twelve years past.

"The protection situation in Illinois may be summarized under the one word, progress."

The Secretary reports a rapidly growing interest in Audubon work throughout the State, that the membership is increasing, and that branches are being established in some of the larger cities, although this special feature does not grow as rapidly as could be hoped. Large numbers of leaflets have been distributed, 1500 having been sent to milliners in the State, 2000 to State Superintendents of schools for teachers, and many to Farmers' Institutes, for distribution. A generous and public-spirited woman, a member of the society, presented 56 colored slides to illustrate a lecture which is now in use and is making many friends for the birds.

The press of the State is giving material aid by the publication of articles about birds; bird charts are being placed in schools. The Federation of Women's Clubs is helping, every club having had at least one bird program, and many having had special meetings; in Ravenswood the club members passed resolutions strongly condemning the wearing of plumage.

Miss Drummond, the Secretary, from whose report the above facts are gleaned, very pertinently quotes: "Plenty of people wish well to any good cause but very few care to exert themselves to help it. Some one ought to do it, so why not I?"

The Farmers of Rockford Township have taken such a splendid advance step in forming an association for controlling and regulating hunting on their farms that their Constitution and By-Laws are given in full in the hope that the farmers of other States may follow this most excellent example.

CONSTITUTION AND BY-LAWS OF THE ROCKFORD TOWNSHIP
FARMERS' ASSOCIATION.

This Association is formed for the purpose of controlling and regulating hunting on and over farms owned by or rented by us.

Article I.— That the name of this Association shall be the ROCKFORD TOWNSHIP FARMERS' ASSOCIATION.

Article II.— The officers of the Association shall consist of a President, Vice-President, Secretary, and Treasurer, who shall be elected annually on the first Monday of December of each year by a majority of members present.

Article III.— The President shall preside at all meetings and upon request in writing of five members shall call special meetings at any time. The Vice-President, in the absence of the President, shall take the chair.

The Secretary shall keep all records and any or all correspondence, shall collect dues and other income.

The Treasurer shall receive from the Secretary all moneys of the Association, and shall pay out the same on warrant of the Secretary. He shall make an annual statement which shall be verified by the books of the Secretary.

Article IV.— This Constitution may be altered or amended at any annual meeting or adjourned session thereof by a majority of members present.

By-Laws.

Article I.— Any farmer may become a member of this Association upon payment of a fee of 75 cents to the Secretary.

Article II.— Each member shall post in five or more conspicuous places, notices prohibiting hunting or trespassing upon the premises.

Article III.— Each member shall interview, as far as possible, any person found hunting upon the premises, and if after the interview such person persists in hunting, such member shall go before the nearest justice of the peace or magistrate and cause to be issued a warrant for trespass against the offending person.

Article IV.— Each member shall use especial effort to prevent hunting on Sunday on his premises, as such hunting is particularly objectionable to the members of this Association.

Article V.— Any member may grant any person well known to him the privilege of hunting on his farm; provided, that he accompany such person.

Article VI.— Each member shall use every effort to prevent the wan-

ton destruction of birds, and promote the strict enforcement of the game laws of the State of Illinois.

The Mayor and Council of the city of Evanston, appreciating the economic and æsthetic value of birds in the parks and city limits, passed a special ordinance prohibiting their molestation by the use of firearms, slingshot, bow and arrow, pelting with stones or otherwise, and also forbade the taking of eggs or nest under a penalty of not less than five nor more than twenty dollars for each offence.

The Governor, also, in his Arbor Day proclamation called the attention of the citizens to the necessity for bird protection and asked that exercises tending to show the value of birds be held in connection with the tree exercises.

INDIANA.—*Legislation.*—There has been no change in the non-game bird law, the A. O. U. model being still in force. The next session of the legislature will be held in 1905.

Warden work.—No wardens were employed by the Thayer Fund.

Audubon work.—The Secretary makes the following admirable report of progress:

"I have been in the thick of the work, troubling myself not at all with the way what we accomplished might work up into a report; chiefly concerned in getting in what work I could in ways that seemed to me most likely to count for the birds.

"Do you know Indiana? It is admirably located to 'work out' the old Roman idea of development from a center in Audubon work, as in many other things, and so a story of Indianapolis work serves as a sort of type story for a good many cities and villages in the State.

"Here we have a strong Audubon Society; not large in numbers, but large in accomplishment, considering the number. Every one works; no one has to be entertained. We have a number of open meetings in the year with interesting and timely talks or papers. Aside from this the Society expends its effort in two directions, work in the schools and in the press.

"The school work is very interesting. Every spring we muster all our members capable of being used in this way, to give one or

more afternoons each week to the school work. Then we give 'bird talks' in schools. The School Superintendent so arranges that the talks work in with the nature study the pupils are doing in their regular school routine. There were seven of us giving talks last spring, and from chance meetings with them I find that they all feel that this work among the pupils is of great value. Pupils give close and intense attention to 'bird talks,' lasting from thirty to forty-five minutes; they stay after the talk, and school is dismissed, to ask questions about the birds they have seen, nests they have found. The teachers enjoy the work almost as much as the pupils; through this work a good deal is achieved for the birds, but as one watches the interest and enthusiasm developed by the boys and girls, one cannot but see that the study of the birds does much for them. I was pushing my wheel along the banks of a creek in one of the parks, when two boys came running toward me and called as soon as within hailing distance to know if I was not the lady who talked about the birds to school 38. As soon as I said that I was they shouted 'Wait a minute; we'll boost your wheel up that bank for you,' and they not only 'boosted' the wheel but staid with me all afternoon, and I learned while with them how very much the bird work does in the way of broadening the horizon for these little ones who have so little of opportunity and know so little how to use what they have. Some of the teachers told me that the pupils had been impatient more than a month for their 'bird lecturer.' As far as we can, the State Society tries to have the bird talks given in the schools throughout the State; they were given in a good many schools last year, other than Indianapolis schools, and will be given in more next year.

"Prof. Amos W. Butler is one of our strong working members, and as Secretary of the State Board of Charities is about the State a good deal; incidentally, he gets in touch with a good many people interested in bird work and serves as a sort of Field Secretary for the Audubon Society; besides this, he starts, at every opportunity, an interest where none exists.

"Besides the school work and the work of the various societies and individuals we have attempted some work through the press. The newspapers are glad to publish anything of interest we can furnish them.

"In the year just closing Mr. Woollen furnished a series of papers regarding the birds and plants around Indianapolis. These were so timed that they could be used in the nature study work in the schools. I furnished a series of 'City Bird Sketches,' from week to week, very simple and non-technical, written after talking with some of the supervising principals, to make a sort of local guide for the teachers and pupils of the birds to be found about the city at the time. For instance, in January winter birds were discussed; in February, 'Birding on Washington Street' (Birds of the Bonnets); late February, the Bluebird; then the Robin and Meadowlark.

"This newspaper work has proved of a good deal of value and we are now planning to extend it through the State. We shall have sketches in as many of the State papers as we can get the material for, and also in at least one set of 'patent insides.' The only limit to this sort of work is the getting people who can and *will* write the sketches. Almost all our people are so busy that they think they cannot take the time to write; indeed, what Audubon work is done in Indiana is done by busy people who have to slip it in as best they may, with their regular work.

"The work in the schools receives such recognition that the city librarian has agreed to add enough bird books to meet the demands of the teachers and pupils, at least in part. This year the attendants at the library tell me that the stock of bird books was only a drop in the bucket, compared to the demand. I am now working out a list of books, numbers of copies of each needed, etc. They agree that these books shall be in and ready for distribution by the time the spring nature work opens in the schools.

"I do not know how many societies we have in the State, but the bird work, organized or not, is progressing. I had a report last week from a bird club in Hanover. This week I am corresponding with some of the teachers and newspaper people in Noblesville, looking toward an organization among those interested in the work there.

"I greatly regret that all I can give you now in the way of a report is this inadequate and informal letter. Another time, with the work in hand, I trust that I may be able to meet your requirements and send a report that can be properly so called."

IOWA.—*Legislation.* — There will be a session of the legislature in 1904, commencing in January, when an effort will be made to have the A. O. U. model law adopted. Inasmuch as only a few non-game birds are now protected, the passage of a new and comprehensive law is very important.

Warden system. — No wardens were employed by the Thayer Fund.

Audubon work. — The Secretary of the Schaller Society reports as follows: "As to our work: We have one illustrated lecture in the field and have distributed many of the excellent educational leaflets issued by the National Committee.

"Our proposed work for the coming winter will center in the one object to get a bill passed in our Legislature prohibiting trap shooting in our State.

"We would suggest and beg that the National Committee take up the subject, and publish some literature upon the matter of live bird shooting from traps, that could be used for distribution in all States where the barbarous custom is not prohibited by law. Nebraska passed such a law last winter and the 'sports' all come across the river and hold their shoots in our own State, at Council Bluffs and Sioux City. I wish you would send me a strong argument to be put into a circular for distribution for our campaign."

There are indications that Audubon work will soon be greatly extended in Iowa by the organization of other societies, which may be joined in a State body.

KANSAS.—*Legislation.* — The non-game bird law is totally inadequate as it only protects eight species and two of these may be killed, provided the owner of an orchard is willing to say that he thinks the said birds are harming his trees. An effort was made by our fellow member, Prof. D. E. Lantz, to attach the main features of the A. O. U. model law to a game bill that had already been introduced. In this he was successful, but the bill was killed owing to determined opposition to some of its other provisions. The next session of the legislature will be in 1905.

Warden system. — None employed.

Audubon work. — There is no society in the State, although there is great need for one. Prof. Lantz wrote the National Committee Feb. 12 that he was shipping daily from the laboratory of the Agri-

cultural Experiment Station nearly \$200 worth of rodent poison sold to the farmers at actual cost of the materials. This was used to kill pocket gophers and prairie dogs. There is certainly need for educational work among the farmers of Kansas who permit and probably themselves kill every hawk and owl they see, not knowing that these birds live very largely upon the very rodents that they buy poison to kill, at the rate of almost \$200 per day. It would be a far wiser and more economic movement to spend this daily sum in bird literature to circulate in the rural districts in order that the agriculturist may learn the good that the 354 species of Kansas birds are doing for the farm interests. Let some of the bird lovers of the State take this matter to heart and organize for the protection of the birds and the conservation of one of the most important assets of the Commonwealth. The press should also take up this matter, for Kansas is far behind some of her sister States whose agricultural interests in no way compare with hers.

KENTUCKY.—*Legislation.*—The A. O. U. model law is in force. The next session of the legislature will be in 1904.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—The society is small and rather inactive. However, there are some individuals in the State who are doing excellent work for the birds. Mr. C. W. Wilson of Mayfield writes as follows: "I am resolved to remain, or get in close touch with your grand work, and to do at all times all I can for the protection of our birds; I want to be used. When our County Teachers Institute convenes this summer I want to distribute some suitable literature and get one of the teachers to make a talk on the subject. We must reach the children of Kentucky in the common schools. I feel sure of this."

Mr. R. H. Dean of the U. S. Weather Office, State College, writes: "I have been requested by the Dean of the State Normal School to lecture before the school on birds. There are teachers in the school from over the State generally, and such a lecture properly prepared will no doubt do much good." Later he wrote: "Much interest was taken in the talk and the pictures. It is my intention to obtain as complete a set of bird slides as possible and to repeat the lecture at intervals in this institution, State College, and at other places."

LOUISIANA.—*Legislation.*—There was no session of the legislature during 1903, but one will convene in May, 1904, when a renewed and determined effort will be made to pass the A. O. U. model law. It is vitally important that Louisiana should have the very best of bird and game laws, so many of the northern birds make this State their winter home. It is useless to try to preserve birds at their breeding homes if they are to be wantonly slaughtered at their winter homes.

Warden system.—None can be employed by the Thayer Fund, although the extensive coast line, which is an ideal place for water birds, should be systematically patrolled. Without legal backing money spent for warden service is simply wasted.

Audubon work.—The report of the Executive Committee is here given in full, as it is very interesting and complete:

“Work accomplished by the Louisiana Society since the date of incorporation, November 22, 1902. Giving due consideration to the difficult conditions to be met in a fight for bird protection in southeastern Louisiana, and especially at New Orleans, the Louisiana Audubon Society may be allowed to feel some little satisfaction over the work accomplished during the last year. In one particular, the curtailment of the shooting of song birds under fancy French names at certain seasons of the year, the Audubon Society has had to face the prejudices and traditions of at least five generations. The Wood Thrush, or Speckled Caille, the Catbird, or Black Caille, the Tanagers (in fall plumage), or Yellow Cailles, the Kingbird, or Black Grasset, and the Red-eyed Vireo, or Green Grasset, have been the prey of many of the so-called sportsmen of Louisiana, but particularly of New Orleans, since the days of the first French establishments. As far as securing a prohibition of this kind of shooting is concerned, so far the Audubon Society has been unsuccessful. The ignorant interposition of the local trappers of birds, and dealers in live birds, men whose interests are affected in the case of only a few species, has defeated practically in toto the Audubon Society's efforts at restrictive legislation. The same interests that defeated a bird protection bill introduced at the 1902 session of the Louisiana General Assembly by Mr. Frank M. Miller, now President of the Audubon Society, prevented the passage of a city ordinance introduced before the

City Council of New Orleans August 25, 1903, since the organization of the Audubon Society. Protection for a host of insectivorous birds could almost certainly have been secured in either case had the Audubon Society been willing to compromise matters with the bird dealers. The crux was the trapping of Cardinals and Mockingbirds. The proposed bill in either case would have been the A. O. U. model law, and as this prevented the killing and trapping of any song or insectivorous bird whatsoever, the bird dealers stepped in and used their influence to secure the substitution of a bill drawn up in an ignorant and careless manner, and from the very nature of the point of view of its framers, giving practically no protection to song and insectivorous birds, except in the case of the city ordinance, which prohibits the sale of all birds save a few excepted species, for ornamental purposes. The few non-game birds protected from the gunner are those that happen to be the desiderata of the trappers. As these birds had to be mentioned to entrench the privileges of the trappers, it was no trouble to mention that they should be protected from the gunners. The assortment is, nevertheless, rather a peculiar one: Cardinal, Mockingbird, Oriole, Bluebird, Nighthawk, and Whip-poor-will. When the bird dealers drew up their law before the Louisiana legislature, they appeared to throw in with the names of the cardinal and the mockingbird, which are not to be molested except for 'domesticating purposes,' the names of a few other birds of which they happened to think, so as to appear to be concerned in the protection of the song and insectivorous birds of the State. In the matter of general protection of non-game birds, the city ordinance copies the State law.

"Though the actual results of legislation in favor of non-game birds is small, the question has been thoroughly ventilated, and the moment of the whole matter has been impressed on some part of the population. Education as to bird protection has been secured and their integrity and not the stock of their information will be at fault if legislators before whom the question is brought in future do not uphold the decision of enlightenment in half the States in the Union.

"As to the protection of game, the society has been able to pursue an active course, as the game laws of the State are more nearly

adequate for the conditions. Prosecutions for killing deer and papabottes (Bartramian Sandpipers) out of season have been secured, and a wholesome fear of violating such laws as do exist has been easier to secure than the winning of councilmen and legislators to the views of bird protectionists, or for that matter, in getting them to take any view but a jocular one, and even in some instances, any view but an unprincipled one.

"Five hundred appeals to the people of Louisiana have been issued since last December, and the better part of them have been circularized. A part of this appeal was published in 'Bird Lore' shortly after the appeal was issued. To facilitate the observance of the game law, the Society has issued 100 large cards giving the closed seasons. These have been distributed to postmasters and clerks of courts over the State. One hundred cards of the same size offering a reward of \$25.00 for the arrest and conviction of anyone violating the non-game or game provisions of the State law have also been issued.

"The Educational Leaflets received from the National Committee have been distributed among the members. Local secretaries have been appointed in several parts of the State. The membership of the Society at present, including associates and life members, is about eighty.

"Between the present time and the convening of the Louisiana General Assembly for the session of 1904, the Audubon Society will have a great work on its hands in bringing the question of bird protection before the legislators of the State. From the work along this line that has already been done, there will not be a great deal of difficulty in convincing the law makers from the country districts and from the smaller towns that bird protection is an essential for any civilized community. There are no indications that there will be any serious opposition from any part of the State except the southeastern, and the interests of the other sections properly aggregated will outweigh any combination of bird dealers, market hunters, misguided 'sportsmen,' and corrupt and indifferent legislators.

"One pleasant feature of the work of the past year is that the milliners of New Orleans have established with the Audubon Society the same cordial relations as have been established between

the New York Society and the milliners of the metropolis. The recently enacted law for bird protection in New Orleans carried its one good feature, the prohibition of the use of birds for ornamental purposes, to an absurd extreme, and as the law stood at first, milliners could not even handle duck, goose or turkey feathers. With the help of the Audubon Society the law was amended to protect all native birds except the above species and the dove, which practically means pigeon.

"Several considerations, including financial ones, have made it impossible for the Louisiana Audubon Society to have a delegate to represent it this year at the deliberations of the several Audubon Societies convened in Philadelphia. The executive committee trust, however, that by submitting the foregoing report they will be able to expose the conditions in Louisiana almost as clearly as if the committee were represented in the person of any of its members."

MAINE.—The non-game bird law is still satisfactory, no changes having been made in it by the legislature of 1903. An effort will be made to protect the beneficial hawks and owls as soon as public opinion is educated sufficiently to warrant the movement. The attention of the sportsmen of Maine is called to the fact that the game laws give no protection whatever to any wild ducks except "wood duck, black duck, gray duck and teal"; all the other species of the Anatidæ are left without legal protection: This is wrong and should be remedied. The American Eider was formerly a common breeder on the Maine coast but is yearly becoming more rare owing to the fact that almost every set of eggs that is laid is at once taken by some fisherman. Unless a law is passed making a close season for a term of years, this splendid duck is doomed to extinction in this State. The spring shooting of plover, snipe and sandpipers should be abolished, as it is wrong in principle.

Warden system.—The result of the work of the ten wardens employed is very satisfactory, showing on their part great fidelity to and an intelligent interest in the trust committed to them.

Mr. A. H. Norton, a member of the Union, at the request of the Chairman, visited every portion of the coast and thoroughly inspected the wardens' work. He states: "While all of the wardens were very kind and interested in the success of my inspection,

I would like to make especial mention of Mr. Fred Rackliff, who rendered gratuitously invaluable aid; Capt. Hall of Matinicus Rock, for making my stay there successful and pleasant; Mr. Martin Talmon and wife of the same place for entertainment and many kindnesses; Mr. and Mrs. Robinson of Libby Island for acts of courtesy, and Capt. and Mrs. Small of Cross Island for entertainment and aid of much value. The work was indeed pleasant and one in which I take great interest." The report of Mr. Norton is so exhaustive and interesting that it is thought best to quote from it very freely:

"On June 20, 1903, I paid a visit to the Night Heron colony in Falmouth. This is on the main land, upon the estate of Gen. John Marshall Brown, of Portland, which is his country home, known as Thornhurst. This colony is within ten minutes' walk from a much traveled town road, traversed by an electric car line. Under date of Feb. 7, 1903, Gen. Brown wrote me that the birds have been in his woods for twenty-five years, to his knowledge, where they have been protected by him; he thinks they occupy twenty acres.

"On the date of my visit the birds seemed to be enjoying security; no evidence of shooting (which is the real danger threatening the nesting species) was observed. The nests were built near the tops of tall, slender pines and many of the young were large enough to clamber from the nest out on the branches. The crows, which were abundant, seem to destroy some of the eggs, as I found a number of shells that clearly had been broken by these birds. I visited the tern colony in charge of Mr. Cushman and found it in good condition.

"Mr. G. E. Cushman, warden, has charge of the above mentioned colony, also of the tern colony on Bluff Island. He reports an increase of six hundred terns during the season, and adds: 'The eggs were so plenty one had to walk carefully to prevent stepping upon them.'

"On June 30, I boarded at Portland the little packet 'Mineola' for a trip of 65 miles east to Port Clyde. Passing the Outer Green Island, six miles east of Portland, about half-a-dozen terns were seen over the shore of the island, one of which was carrying fish. The war manœuvres on this coast this summer, it is to be feared, may again cause these birds to abandon the place, as it is used as a base for the targets for the heavy guns at the forts inshore.

"Whenever outside islands or ledges were passed in Casco and Sheepscot Bays, flocks of from seventy-five to four hundred Herring Gulls were seen resting upon them, though none are known to breed west of No-Mans-Land off Penobscot Bay.

"At Metinic, in a swamp well protected by undergrowth and very difficult of penetration, fresh signs of Black Ducks were found, and near the house of Mr. Snow, owner and warden, several nests of Savanna Sparrows and Spotted Sandpipers were seen. He then took me to Metinic Green Island, the home of thousands of terns, the only Laughing Gulls now known to breed in Maine, and of a good number of Sea Pigeons and a few Leach's Petrels. This is one of the largest Tern colonies in Maine, vying with Machias Seal Island for second rank to Matinicus Rock. A very large proportion of these are the Arctic Tern but the Common Tern is in good numbers. None of the young were yet large enough to fly but were in well fledged condition, while many nests with eggs were still to be found, and one had to walk with care to avoid stepping on nest or young.

"The adults were very tame, and this applies also to the Sea Pigeons and even the Laughing Gulls. Quite a number of the Pigeon's nests were found but none had hatched.

Eight Laughing Gulls were counted at one time, and three nests were found containing eggs. The colony was in an excellent condition at the time of my visit. Mr. Snow had a notice posted at each landing, and Metinic was well supplied with them. With the protection now afforded it is to be expected that the Laughing Gull, now nearly exterminated in Maine, may again become well established.

"I then proceeded to Deer Isle as a base of operations in Penobscot and Jerico Bays. Mr. Fred Rackliff, who is well acquainted with the sea birds and their ways, and is a boatman of excellent skill and judgment, most generously supplied a small boat and outfit and accompanied me on this trip, making it possible to cover much more satisfactorily than could have been done with a sail boat, these bays of small and rough ledges.

"We visited in Jerico Bay, Southern Mark Island, on July 4. Two Eider Ducks were seen to leave the shore. One nest was found containing two eggs; by placing one of these in a pool of

water it was found to be nearly or quite fresh. An empty Black Duck's nest was also found here.

"On the western point a colony of about 200 Common Terns was found. These had been robbed of eggs, as two empty nests to one with eggs were found, and no young were discovered.

"Mr. Rackliff visited this island last year and found that only a few pairs were there then. On the same day we found at White Ledges, locally called Way or Whale Ledge, an Eider Duck's nest with four eggs, also two empty nests. We saw a small flock feeding, which swam away, but four ducks with one drake remained not far away, and were supposed to be birds making this ledge their home. This small ledge is in two parts, each part containing less than half an acre. The birds all breed on the southern one, which is low; it is covered with coarse gravel and small pebbles, bound together with a small amount of turf, supporting five or six species of sea plants.

"This is rapidly yielding before the storms of winter, and possibly one or two winters may close the history of this resort. With the influence of protection there is much probability that the birds will adopt one of the near islands or ledges as a breeding place; without this these ducks will no doubt leave the bay entirely, thus reducing the number, already small, very seriously. Here we found five gulls' nests, in one of which the eggs were just hatching.

"The 'Three Ledges' just east of Fagg Island, where we camped, and the Green Ledge, a little south of the three, where a small number of terns were breeding last year, showed only two or three empty nests; it seemed reasonable to suppose the new colony at Southern Mark Island was composed of the birds which were here last year.

"On Saddle-back Ledge, where one or two pairs of Eider Ducks are said to breed, we saw no ducks nor found any nest; one or two could easily have been overlooked. On the northern part of this island we estimated the terns at 300, and on the southern part at 100; some eggs had evidently been taken, but the condition was better than at Southern Mark Island. Quite a number of young terns were found and the adults, though wilder than at Metinic Green Island and Matinicus Rock, were less so than at Southern Mark Island.

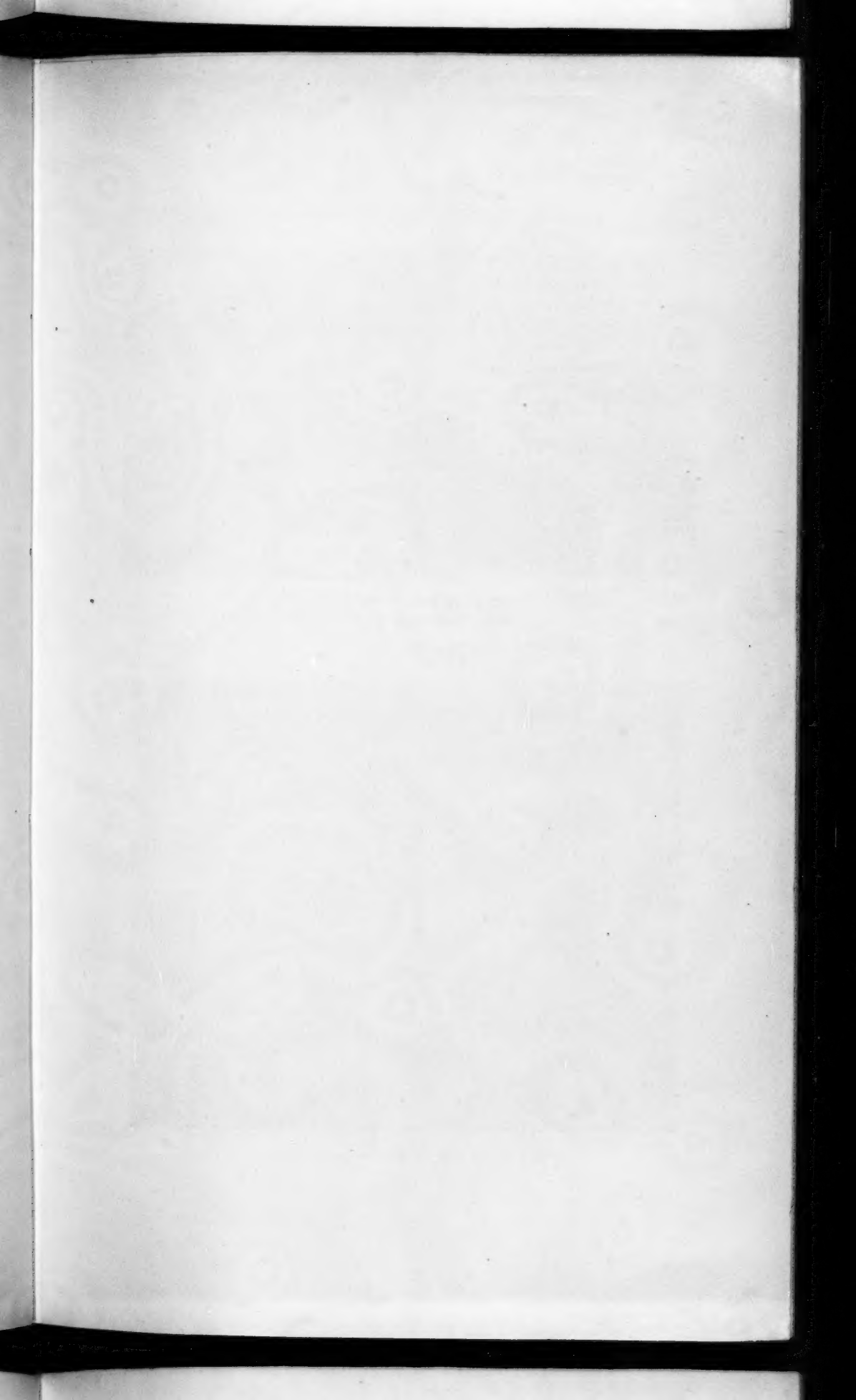




FIG. 1. PUFFINS, MATINICUS ROCK, MAINE.
Most southerly breeding place on North Atlantic Coast.



FIG. 2. NEST OF AMERICAN EIDER DUCK, MAINE COAST.

"At Great Spoon Island we found only Petrels, Spotted Sandpipers, Song and Savanna Sparrows. At Little Spoon Island, we found two pairs of terns and about four hundred adult gulls, which had hatched well, and seemed to have suffered little or no disturbance.

"Gulls were still breeding on the Black and the White Horse Ledges, but no young were seen nor were any empty nests observed. Cormorants were present but no nests were found.

"At Spirit Ledge no gulls nor terns were breeding, but we saw four Eider Ducks and found three nests, the eggs in neither of which seemed advanced in incubation, while one of them contained an incomplete set of eggs. A few Sea Pigeons were probably breeding, but it was impossible to find a nest.

"At Black Rock we found two gulls' nests with eggs, and four Sea Pigeons were probably breeding.

"On Heron Island we found a colony of gulls numbering a thousand or more. This colony was in excellent condition, very few eggs being found. The gulls were tame and the young were abundant. We found two Night Heron nests here, and it seems likely that this bird may increase.

"At Haulibut Ledge about one hundred Common Terns were breeding on the southeastern ledge. No young were seen. Here we saw no Eider Ducks nor any nest, but Capt. Conary informed me that notwithstanding the fact that none have bred here for a few years, he discovered a nest this year with five eggs which he believed would hatch. As I found the excrement of a brood of young birds, not terns, in several spots under flat rocks on the shore, there seems little doubt that this nest hatched as predicted.

"In concluding with Jericho Bay, I found that while the birds seem to be shifting to some extent, they are also collecting into better colonies for protection, and are increasing quite rapidly. The Southern Island colony is practically a new one and probably a permanent one. At both Saddle-back and Haulibut Ledge the increase since your first report is gratifying.

"The same may be said of the Herring Gulls, *i. e.*, they are uniting and increasing quite rapidly; while decreasing on the smaller ledges, for instance White Ledge, and disappearing from Spirit Ledge, on Heron Island the increase is decided and grati-

lying, the colony containing not far from a thousand adult gulls against four hundred in your first report. (*Cf.* Auk, XVIII, p. 99.)

"The increase at Little Spoon Island is less decided, probably owing to the fact that this is an outside island and suffered less (than Heron Island) before protection became so well established.

"The few Eider Ducks here are the remnant of a once goodly number breeding in this section. I think they are still robbed of their eggs. Every effort must be made to save this noble duck as a summer resident and breeder, not only for Maine but the United States. If it could be possible to give the breeding colony absolute protection for a few years we could reasonably expect a good result, as has been shown by the gulls and terns. Though this bird, within the memory of the present generation of middle-aged men, bred from the western side of Penobscot Bay easterly to the present location of the colony, and at several other places east to Machias Bay, it is now reduced to the small number breeding in Jericho Bay, and a colony on Old Man Island.

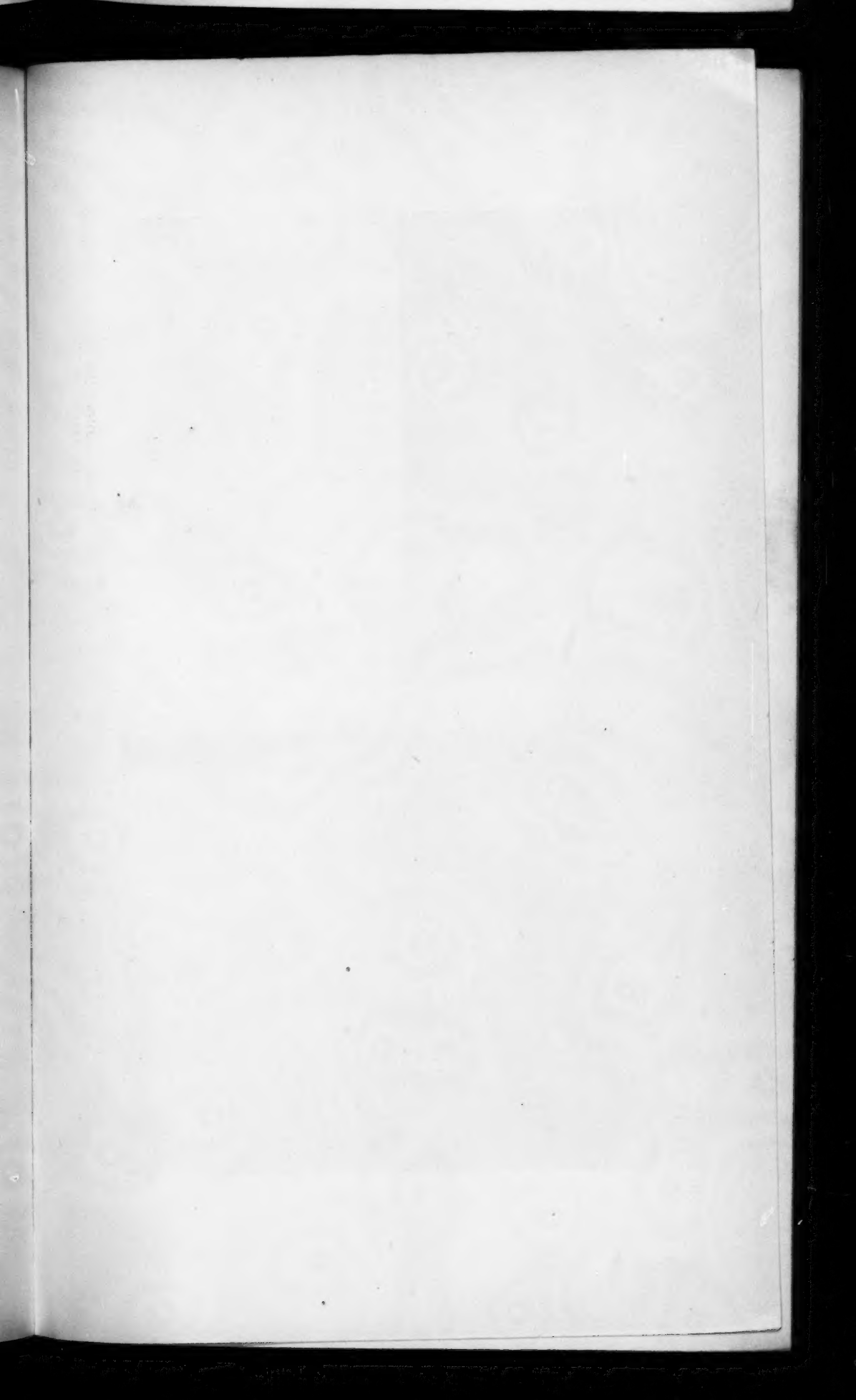
"With the exception of the extinction of the Masons Ledge and Green Island colonies, the Sea Pigeons seem to suffer no molestation. In this bay their nests are nearly inaccessible.

"Finishing the inspection of this bay July 13, we went to Penobscot Bay to investigate the condition of the colonies under the care of Capt. H. T. Ball of Eagle Island.

"Sheep Island was occupied by a colony of Fish Hawks which had ten nests which I saw.

Colonies of Terns were found on Sloop Island and Channel Rock on July 17. On Sloop Island fifty nests with eggs or young were found; probably 75 to 100 pairs breed here. On Channel Rock, a small pinnacle-like ledge with grassy top, about fifty terns were breeding. I was convinced that some eggs had been taken from these islands. Notwithstanding these facts many small young were seen, and the adults were moderately tame.

"At Bradburys Island it was impossible to get ashore without finding one of the warning notices well placed. That the colony of Herons had not been disturbed seemed certain. The luxuriant undergrowth had not been trampled around the rookery, and we found the Great Blue Herons pleasingly tame. A few young were





HERRING GULL, CAUGHT BY FOOT IN SPRUCE STUB,
GREAT DUCK ISLAND, MAINE.



BLACK GUILLEMOTS, OR SEA PIGEONS, ON A PROTECTED ISLAND
IN MAINE.

taking short flights from the nest, and most of them were well grown. Every nest seen was clearly occupied. Here the birds breed in a piece of woods extremely difficult of penetration by reason of fallen logs and a dense undergrowth of shrubs and weeds. In a two acre lot 20 nests were counted, and this was a small section of the area covered by the birds. Capt. Conary informed me that a small colony of these birds had started breeding upon White Island, owned by himself.

"July 18, 1903, we visited Great Duck Island, and it seems needless to say that the colony was in excellent condition. Not a nest containing eggs was seen. The adult gulls allowed one to approach within 36 feet in some instances, and settled again as soon as we had passed. The young ran before us like flocks of hens, whenever we rounded a turn in the road. Mrs. Stanley, wife of the warden, said, 'We had as soon any one would come ashore and carry off one of our hens as to take one of the gulls.'"

Great Duck Island is probably the most ideal spot on the Atlantic coast for a bird colony, as it is some distance from the mainland. The birds all congregate at the southernmost end of the island, where the Great Duck Lighthouse is located. The head-keeper of the light is the warden and is deeply interested in the welfare of the colony. He reports: "The area occupied by the birds this year is materially larger than during 1902, and as near as I can judge, about 3,000 young gulls were hatched and reached maturity. In addition to the gulls some 2,000 Leach's Petrels were also raised, besides numbers of several species of land birds. The mortality among the adult and young gulls was quite heavy; the former were killed by being caught in brush or trees and the latter principally by being dashed against the rocks by the heavy surf. I estimate that not less than 500 gulls were killed by these several causes."

There is also a large colony of Herring Gulls on Little Duck Island, the increase of the colony in 1903 being about 1,300 birds. The warden, Mr. D. Driscoll, reports that the birds were not molested.

Resuming Mr. Norton's narrative: "On July 22 I was landed on Matinicus Rock; fog, heavy sea and wind combined to keep me here until the 28th, giving ample time to observe this interesting resort for birds.

"The mortality of Terns at this rock, as at all other places in Maine, has this year been very slight. Capt. Hall and his assistants have observed that during a brief period of mortality, earlier this year, the old birds were bringing very little food ashore.

"Capt. Hall has the esteem of his assistants, and they all take a personal interest in the birds, and it is evident that the latter receive absolute protection. They are almost without fear of man, and I had an excellent opportunity to observe them at short range; large flocks could be gathered at the boat slip by use of fish livers or anything that would float. As they alighted upon the rocks or hovered close at hand, the field glasses made their identification as Arctic Terns positive. It was only the day before I left the Rock that a small number of Common Terns were found. These were back of the beach on the inside of the northeast point. Many of the young terns were on the wing, some being with their parents as far away as Matinicus.

"Nearly all of the Sea Pigeons had young and were busy bringing food ashore. This seemed to consist entirely of rock eels (*Gunnellus gunnellus*).

"Four Puffins are here this year, an increase of one pair since last year. These were so tame that I crept, mostly in open sight, within thirty feet of them, focused my camera, and secured a photograph of the whole group. I did not see them carry fish ashore and doubt if they had young at that time. Mr. Talmon, one of the light-keepers, is sure that he had seen them carry food this year. There being no mistake about this, it is my opinion that the young died of some natural cause. Their nest, if they had one, had not been discovered. It is much to be hoped that these birds shall receive especial care, and none be taken for any purpose whatever until a safe increase has occurred.

"It is interesting to note that six Laughing Gulls paid a temporary visit of a couple of days to the Rock this spring.

"On July 28, Mr. Martin Talmon of Matinicus Rock Light took Capt. Mark Young and myself to No-Mans-Land. We were under obligations to Capt. Hall for his naphtha boat on this occasion. Capt. Young took much pains to show us about the island, and his gulls. These latter were in their usual excellent condition, showing the unmistakable evidences of unmolested birds. The young were

everywhere to be found, often running before us in little flocks, while the earliest ones, just beginning to fly, rose and circled over the island or settled again a short distance away. Some were a short distance from shore with the old birds. These were the first young gulls seen on the wing. Capt. Young justly takes considerable pride in the magnitude and good condition of this colony; he runs a gang of lobster traps around the island this summer, and while attending to the business of fishing, pays almost daily visits to the place. This constant oversight, coupled with his determination to protect the birds, insures them absolute security.

"A few Petrels were to be found breeding here. Colonies of from 10 to 40 Sea Pigeons are on Green Ledge, east of Matinicus, Two Bush, and Two Bush Ledge, between Matinicus and No-Mans-Land. These have not been disturbed.

"July 29, from the steamer 'Frank Jones,' examination was made of the colonies of Terns on Ship and the two Barge Islands. On Ship Island a colony of some size, fully equal to that seen last year, was observed, and on the Western Barge 50 to 75, while on the Eastern Barge 20 or 30 were ashore, and rose as we passed near their resort.

"This day was consumed in reaching Jonesport; the following one, July 30, was lost owing to a dense and persistent fog, my boatman not being willing to go out. The next morning was clear and an early start was made for Cone and other islands.

"Cone Island is the least satisfactory of all the colonies. Capt. O. Cummings informed me upon my arrival at his station, that the gulls have not bred well this year, but many use the island as a resting place. This I found to be true. Indeed, only three or four gulls acted as though they were breeding, by hovering over the island and cackling at our approach. The ground was so swampy that no nest was found. These were the only gulls ashore. On the knolls, several different ones, on the sea beach and at certain wet places the quantity of freshly dropped feathers bore indisputable evidence of the visits of gulls habitually. It was said that these visits were made during the high water, at which time the birds do less fishing than on the low water.

"I found the notices well posted. Capt. Cummings said that the only explanation he could offer for the few birds breeding was

that his station, which is one-half a statute mile (coast survey measure by me) from their breeding ground has been receiving extensive repairs, the carpenters making the usual noise of this trade. He also stated that the foxes liberated there some time ago are dead. This I could not verify. I was also told by him that about 200 gulls were breeding upon Flint Island, and about 100 terns on Pot Rock; the former is quite a high, large island. I took considerable pains to go here and land, and walk across the island and up on its highest part, but no gulls were to be found at this time. Pot Rock is very small, and landing was impossible, but by passing near it, I am sure that no terns were breeding there. I found Capt. Cummings very kind, obliging, and seemingly anxious to do his duty to you. Yet his manner made me especially particular to investigate each statement made by him.

"To summarize: There are practically no gulls breeding on Cone Island this year, nor are there, so far as I now know, any between the Duck Islands and Pulpit Rock. Many Gulls continue to rest on Cone Island.

"After visiting these places I directed our course to Egg Rock, which was swept by sea during June, 1902, causing the terns to abandon it; a colony of several hundred terns is now re-established. These I believe to be mostly Common Terns. This rock is much exposed and surrounded by a shallow shore, and as the sea was extremely rough I was not able to land; leaving the launch, I rowed in a small boat as near as possible and discharged a gun. This caused all of the old birds to rise from the rock at once, giving a view of the entire colony. This rock is but one and a half miles from Capt. O. B. Hall's station and in open view of it; it is very well located for protection.

"Proceeding from here to Freemans Rock the same results were experienced. No young terns were seen at sea in this section of the coast nor indeed at Libby Island. The Freemans Rock terns are largely Arctic Terns. In addition to the terns and guillemots on this rock, terns on Egg Rock, and Black Ducks on Great Wass Island, Capt. Hall has a colony of about a dozen Blue Herons on Great Wass Island.

"July 31 I started from Jonesport for Cross Island, and all colonies between these points. The sea had abated during the

night, and with the assistance of Mr. Daniel French, warden and deputy sheriff, a thoroughly skilful surf and boatman, I was able to land on all rocks and islands where birds were breeding.

"Pulpit Rock was the first in the course. This at high water forms two separate rocks, but at a little ebb tide the connection is completed; nevertheless owing to the perpendicular walls of the outer rocks one cannot reach its top from the inner one, but must make a separate landing at a particular shelf, and even this is done at some hazard in calm weather, and not at all in moderately rough weather, hence the central part is seldom visited, judging from appearances. The inner part is much easier to land upon and I believe that some eggs have been taken from it. As we approached about 50 Double-crested Cormorants rose from the rocks and flew about for a few moments before leaving. A thorough search of both parts of the rock revealed none of their nests, and Mr. French said they had not been known to breed there.

"A few Sea Pigeons breed here, fifteen old birds being seen and one nest with young was discovered.

"While the gulls present were estimated at eight hundred to a thousand, I think that comparatively few of the number breed, for if they did one could not step upon these small rocks without walking on the nests; in reality the nests are quite scattering. Almost all had hatched, and the young were hiding in clefts of the rocks on the outer rock, which is the highest and largest, and is devoid of all vascular plants. On the inner rock they also hid in clefts, and under the vegetation, which was rather abundant. Here we found two nests with eggs.

"Most of the young were nearly large enough to fly, and frequently with startling screams leaped over the crags, using their wings to break the fall, landing rather clumsily, but unharmed on the covered rocks below.

"On the outer rocks the birds, I think, had been practically unmolested and not seriously on the inner one. Probably the number of gulls breeding is between two and three hundred. It is five nautical miles from Libby Island Light and a little more than ten from Crumple Island.

"Our next stopping place was the Brothers, two islands of high

granite ledge covered with vegetable loam, and the decaying remains of a spruce forest. At half tide, or even higher, they are connected by a bar. On the western one possibly two pairs of gulls were breeding, but the nests or young were not found. On the eastern one a good sized colony of gulls was breeding, probably a thousand or more. The southern seaward side of this island presents a perpendicular wall of granite nearly a hundred feet in height, and many gulls breed in perfect security upon its rifts and shelves. Many young were seen here nearly full grown, hiding upon the gray rocks where their colors were in harmony with their surroundings. On the top of the island, among the fallen logs and elsewhere, many nests were found; quite a number still contained eggs and some had clearly been robbed. I believe that more eggs had been taken here than at any other gull colony in Maine. Yet many young were also found, showing that the eggging had been sporadic. The birds were, on the whole, not seriously interfered with and were tame. I also discovered that some Petrels breed here.

"It is a fact of interest that as I walked over the top of the western island a gull dashed many times at me, coming within five or six feet of my head. Terns frequently do this but gulls very seldom.

"Libby Island Light was next visited. We were directed to North Libby Island where the terns breed. This is an excellent island for their needs and probably 1000 to 1500 terns of both species are here. Mr. French who kept Libby Island light for eleven years previous to 1895, and visited the place on this date, the first time since leaving there, assured me that the increase since that time is at least 75 per cent. The colony occupies the entire eastern end of the island, which is a quarter of a mile wide, while the length of their area is somewhat less. Most of the young were fully fledged and sat upon the rocks of the shore, flying as we approached; a few small young and a few eggs were also seen.

"From here we went to Cross Island, where I remained with Capt. Small at the Life-saving station. He very kindly gave me much aid in securing a boat for Machias Seal Island.

"As the next morning (August 2) afforded a 'good chance' to

go there, well knowing that it might be days before another opportunity came, we took an early start. When half way across two young terns with their parents were seen at sea. When about four and a half miles from the island the first Puffin was seen flying homeward.

"Machias Seal Island consists of the island which bears the name, containing about twenty acres, and Gull Rock, containing about two acres. They are separated by a shallow passage, passable to small boats at low water. Gull Rock lies a quarter of a mile east of the northeast point of Seal Island. This is a low granite ledge without soil, much seamed and cracked. The seams in a few instances afforded nourishment for beach plantains and *Tissa marina*. The rock is covered with a greenish yellow lichen.

"This ledge is completely swept, it is said, by the sea during heavy weather, and was swept during the rough weather experienced July 31 while I was at Jonesport. Notwithstanding this statement many young terns of various stages of growth were seen here, and indeed the colony seemed to be in a good condition.

"These islands are little visited except by the lighthouse attendants, and this rock is exempt from the causes which have acted on Seal Island. This rock affords no opportunity for other birds to breed.

"Machias Seal Island is also a low island with an abundance of vegetable loam and is well clothed with herbage, chiefly grass. The variety of plants is surprisingly small, and most of the characteristic ones of the region are absent. It rises like an isolated hill-top from the deep, submarine plain, and is swept on all sides by the powerful tide current from the Bay of Fundy. Indeed, this current is one of the potent factors to be considered in reaching the island, for in a calm a craft is at its mercy, being borne onward as it happens to run.

"The island has no beaches, the only semblance to one being strewn with angular blocks of granite. The southern and southwestern end is a mass of granite, presenting an impassable barrier to the ocean's storms. This rises not more than forty feet above sea level; yet, though so fully exposed, the sea is never known to have broken across the island, as it frequently does at Matinicus Rock which is much higher.

"History shows that two centuries ago hundreds of seals resorted here to rear their young.

"Of the birds the most interesting are the Puffins. These breed in a pile or windrow of large angular blocks of granite, which have the appearance of a sea wall. Doubtless the wall was formed by the action of the sea during tempests of extreme violence, but at ordinary times the sea does not come within two hundred yards of it, and between it and the sea line grow grass and other land plants. I am told by Mr. Everett Smith of Portland, who visited the island about twenty years ago, and Mr. A. C. Bent of Taunton, Mass., that no Puffins breed elsewhere in the vicinity of Grand Manan. This fact gives an additional interest to this colony and emphasizes the importance of having it thoroughly protected.

"The Puffins are much tamer than Sea Pigeons and are possessed of great curiosity, or, it might be said, they are less prudent than Sea Pigeons. From the edge of the rocks where they breed it is certain that their nesting will not be much interfered with, but shooting the birds must be constantly guarded against.

"Inspection of the mass of rocks where they breed shows considerable quantities of straw scattered in every passage to the bed rock, dropped by the birds in building their nests. By watching them go in and out to feed their young, one could easily see that every opening of the wall leads to several nests, probably a nest at the extremity of every passage. While 33 Puffins was the largest number seen by me at one time, Mr. John Ganang, superintendent of the masonry of the Lighthouse Department, who had spent more than a week here in his official capacity, told me that three hundred is the number resorting here. Mr. Ganang's statement I considered entitled to confidence as I found him to be a gentleman of candor, judgment and refinement, and with a fondness for birds and plants.

"This indicates an increase in the number of Puffins during the twenty years that have elapsed since Mr. Smith's visit, when sixty was the number. But this is the natural outcome of the protection afforded them by Captain Seeley, a protection which seems to have been absolute.

"It was a most interesting spectacle to see the top of the wall adorned by the above-mentioned 33 Puffins, resting here seemingly

and probably in social enjoyment before leaving for the fishing grounds. They were more restless than Sea Pigeons and moved about with an awkward walk, and frequently flapped their wings. On leaving they went away from the island entirely, and for the next three hours, had one arrived here only two or three would have been observed.

"After the time mentioned one came from the sea and circled about, then another and another, until ten were circling. In this flight they passed over their nests and then circled towards the sea, which limited the outer edge of the circle, then returning to repass the nest, thus describing a perfect circle or, as Dr. Coues expressed it, a 'wheel'. But frequently they took a course across the center of the wheel, and described a letter S. Often as they passed over the nest they uttered a deep sound, which though in several syllables had a resemblance to a groan issuing from the chest. I could not determine whether each bird held several small fish in its bill, or a squid with dangling arms. From the direction they came, the northward, it would indicate that their feeding ground was in the direction of Grand Manan channel and the course of the several I have seen at sea supports the indication.

"Upon alighting they hurried without delay into the wall of rocks, often two or three into the same opening, and with little pause they reappeared and put out to sea. Hardly had these disappeared when another party returned, and so onward; they did not arrive in these compact groups, but came singly and in pairs, and being delayed by our proximity, gathered into flocks.

"Common and Arctic Terns evidently were the only terns breeding here, and this year I did not see even the *Sterna portlandica* phase of the latter. These birds occupy the entire island for breeding, but have decreased since my last visit. Those remaining were quite tame, and no dead ones were seen to indicate shooting. The lightkeeper keeps a dog and a cat, and I was told that the dog ate many eggs and the cat caught quite a number of birds. The wife of the assistant keeper told me that they had killed their cat, owing to its destructiveness to the birds. I asked the value of the dog, suggesting that we would be glad to have it off the island. His answer was evasive, but he said he would make provision to send it ashore. Owing to the lateness of

the season and the delay incident to communicating with the shore it is doubtful if this is done. If another year could be begun free from such drawbacks it is probable that the birds would abundantly prosper.

"Probably 3000 terns are still upon the two islands. As the Seal Island is covered with grass the young are not easy to find, and very few were seen; some had already flown, as I saw them at sea.

"The Light is supported by the Dominion Government and it seems quite important to impress upon, not only the keepers of the lights, but also the inspector of the district, the need of protecting the birds here *now*. The keepers are furnished not only with rations but drinking water from ashore, requiring frequent trips of the supply vessel. The discipline is less strict than on our light-house boats and the crews, in part at least, wander over the island at will, and it was insinuated that the birds are the sufferers. I posted three notices here and one on Gull Rock as you wished.

"This island is the location of some of the largest Petrel colonies of Maine, the birds burrowing into the soft earth on every part of the island. These had suffered some destruction, as the wings of a number were seen near the buildings, no doubt having been caught by the cat, as the burrows had not been disturbed.

"Owing to the distance of this place from any shelter, sailing men are not willing to remain out over night, and indeed few are willing even to go there except with perfect weather conditions.

"At five p. m. we started on our return, reaching Cross Island at midnight. Curiously enough, the next day dawned calm, and a trip to the Seal Island would have been impossible.

"This morning Capt. Small took me over to the Old Man Island where we were able to land and examine the condition of the gull colony. Everywhere among the trees the ground is covered with a dense tangle of brambles and weeds making travel very difficult. There were here no indications of any disturbance of the gulls or their nests. The latter were placed along the shore on the edge of the precipice and on shelves of the cliffs. Search among the weeds showed many young concealed there. This island is in direct view of Capt. Small's station.

"Capt. Small told me that a good-sized colony of Eider Ducks

breed here. On this particular morning (Aug. 3), none of the birds were at the island, only one having been seen in the channel half way across to Cross Island. The morning previous, however, as I sailed for Machias Seal Island, about a dozen females were seen close to the shore of the Old Man, and flew about as we passed it. It affords secure concealment for their nests, none of which we saw. I was told by two other men, Capt. Fred Walden of Cross Island, and Capt. Ackley of Cutter, neither having any knowledge of Capt. Small's statement, that this duck breeds on the Old Man. Unmolested ducks would have been hatched some time previous to this visit, so no time was spent in looking for their nests.

"On the same morning we visited the Double Headed Shot. The outer one of these islands only is inhabited by the gulls, perhaps fifty in number. This colony, although near Capt. Small's station, is not increasing. My attention was attracted to the signs of minks on this island, and as it is said that ground or beach nesting birds cannot increase where these mammals exist, I was led to account for the small number of gulls here through this cause. It is to be expected that this island will be abandoned by the birds in a short time.

"On August 8 I inspected the last colony, that at Bluff Island in Saco Bay. This is a colony of Common Terns, probably numbering now nearly a thousand. Strattons Island, which is close at hand, is not inhabited by the birds. These terns have long been protected by the owner of the island, Mr. Jordan. Their feeding grounds extend from near the Saco River to Cape Elizabeth, the largest number resorting to the river mouths at the Scarborough marshes. At the time of my visit large numbers of the young were fishing here with their parents, and at low water they sat in large numbers upon exposed sand spits. On the island some young were just hatching, and all stages of growth were still to be found. Quite a number of abandoned nests with faded eggs were found. Haying operations were in progress and a number of dead young were found which had been accidentally killed. Upon the whole the colony was in good condition and the increase has been a positive one.

"I took the opportunity of posting muslin warning notices on all of the islands visited.

"At one point I was told that gull shooting was still practised at Eastport; while waiting at Lubec for the steamer to Portland I made a trip to Eastport, but I saw no shooting. The City Marshall there was well acquainted with the law and assured me that no shooting is done now. The conditions certainly are gratifying, and it is the subject of general comment all along the coast that the birds are much more numerous and tame than they have been for years."

Mr. Norton has also prepared a special report on the 'Food of Protected Birds on the Maine Coast,' which on account of its great interest and importance is here subjoined in full.

"Notes on the Protected Birds on the Maine Coast with Relation to Certain Economic Questions."

"The most important determination concerning the food of the protected bird was the demonstration, in support of previous observations, that the Gulls and Terns are insectivorous to a considerably greater extent than has generally been supposed.

"I have known for several years that the Common Tern feeds, in this State, to a great extent upon the large winged ants which swarm along the coast. Other insects often occurred in the stomachs examined.

"The Arctic Terns were supposed to be more thoroughly piscivorous, but the examination of six or seven stomachs last year showed that they also eat ants to some extent. One of the four stomachs examined this year was filled with adult moths belonging to the Noctuidæ.

"Wishing to preserve a series of young Herring Gulls, half a dozen of different sizes were taken on Little Spoon Island. Upon examining their stomachs it was found that this series, taken on the low water, contained almost no fish, but all contained ants in varying quantities, only one being full. The contents of this full stomach was analyzed by Dr. Sylvester D. Judd of the Biological Survey, with the following result: 1 bug, 12 carabid beetles, 1 click beetle, 1 scarabæid beetle, 1 cerambycid beetle, and 384 ants, *Camponotus pennsylvanicus*. Dr. A. K. Fisher informs me that 'These insects are all neutral and of no great economic impor-

tance.' However true this latter statement is generally, locally the ants are regarded as injurious to the white spruce and fir which compose the largest part of the arboreal flora of the coast of Maine. While there is no proof that they kill the trees, they quickly fill the dead trunks with their burrows and impair the value of the wood for fuel. The fact that Gulls feed upon grasshoppers is variously attested at Matinicus.

"From the very complex conditions governing the habits of marine animals, little of a positive nature can be derived from the fishing habits of these voracious, almost omnivorous, birds.

"It is, however, stated by the United States Fish Commission that the 'Gulls probably feed more upon herring food than herring themselves.' (Cf. Moore, Rept. U. S. Fish Com., 1896, Appendix 9, p. 404.) It might with much truth be said enemies of the herring. The squids, *Loligo peali* and *Ommastrephes illecebrosus*, are acknowledged as the natural enemies of this fish. Both gulls and terns feed upon squid, the extent undoubtedly being governed by their abundance and the ease with which they are to be captured. Both at Little Spoon Island and No-Mans-Land pieces of large squid, *Loligo peali*, were seen in the nests of gulls, with the young birds. Both at Matinicus Rock and Machias Seal Island, squids, *Ommastrephes illecebrosus*, were found to enter into that of the Arctic Tern. While these creatures are enemies of the herring, they are an important article of bait for the fishermen, and enter to an important extent into the diet of the codfish and pollock.

"While it is probable that the gulls do not seriously trouble lobster fry, it is, on the other hand, clear that they render the lobster fishery a service in destroying large quantities of sea urchins at certain seasons. It is an acknowledged fact among lobstermen that the lobster is partial to rocky bottoms well clothed with kelp (*Laminaria*), where hiding places are abundant amid protectively colored surroundings.

"The herbivorous sea urchin (*Strongylocentrotus drobachiensis*) cleans the bottom of marine vegetation, to the detriment of the lobster's interest. The Eider Duck and American Crow also feed extensively in winter upon the echinoderms.

"It is by some claimed that the gulls are injurious to pasture, and even that they kill the trees where they breed. Concerning the last

statement, it is based upon imperfect observations, for while it is true that the gulls seem to be very partial to areas of dead and decaying wood lots, as they are at Little Spoon, Heron, Duck, Otter and Brothers Islands, and also formerly Cone Island, it is highly probable that they are attracted there by the security they afford, and in no small degree by the abundance of insect food, as I have just observed they use. On the other hand, it has clearly been determined that the spruce is subject to the attacks of several insects, to a serious extent. This matter has been made the subject of a bulletin by the United States Department of Agriculture (Bulletin No. 28, Division of Entomology, 1901, N. S.).

"Not only are the lumber regions affected, but the islands as well; two instances having fallen under my notice. One of these cases was a tract of several acres of standing spruce on Metinic Island, certainly not used by any sea-birds. The other one is the island of Seguin, once heavily wooded but now, through the attack of an insect, entirely devastated. Beyond the possibility of a question, no birds were instrumental in this destruction. The other islands named, where the gulls now breed, undoubtedly owe the death of their timber to a similar cause and in no way to the birds.

"Here it might be emphasized that these dead trees are often riddled by the large ants, which are eaten so extensively by the gulls and terns.

"Concerning the question of the birds injuring the pasture, the belief is based upon equally unscientific grounds. I have observed that some of the islands having a surface soil composed of deposits of drift, gravel and loam of varying coarseness, yield an abundant return in hay or vegetables. As instances, I can mention Bluff, Metinic, Metinic Green Islands, the two Green Islands east of Metinic, parts of No-Mans-Land, Matinicus, Seal and Libby Islands. Of this list Bluff, Metinic Green, and Libby Islands are now the homes of many terns, which cause no complaint from sheep raisers on account of the pasture.

"Metinic Green Island, which has only three sheep, has a stand of hay waist high, while Bluff Island returned a profitable harvest of the same product this year.

"The two Green Islands formerly supported large colonies of terns, while the smaller one had, in former days, a colony of about

50 Laughing Gulls. One of these has for many years been used as a farm and the other as a pasture, but no complaint was ever heard of this richly soiled island being injured by birds. Seal Island was also similarly inhabited by terns, previous to the millinery demand for their skins, but now is without birds, except Petrels; yet it has an abundance of grass and clover in spots.

"Certain other islands, as Otter Island, Great Spoon, Cone, and the Brothers Islands, and a large part of Little Spoon Island, are covered with a deep stratum (in some places certainly three feet deep) of red vegetable loam, quite unproductive.

"As striking instances of the unproductiveness of the pure vegetable loam, Matinicus Rock and Machias Seal Island are to be mentioned. At Matinicus Rock successful gardening is confined to three or four vegetables, cabbage, endive, parsnips, and perhaps another, potatoes, beans, etc., dwarfing. In such crevices and pockets as contain soil, it is wholly of the kind under consideration.

"At Machias Seal Island the soil is quite similar, and similar results were found until gravel from the ash heap was abundantly supplied, when the conditions improved.

"The complaint against pasture damage was from Little Spoon Island. This is an island of diversified conditions, forest or vegetable loam, shallow gravel over ledges, and some profitable drift loam. The pasture is not abundant, and the complaint is wrongly placed upon the birds.

"In conclusion, Heron Island affords interesting conditions. There the grass crop was good, but not equal to that of many other islands. The flock of sheep was not equal to its pasturing possibilities, much of the grass maturing and raising seed. It was there very noticeable that the sheep fed very largely in the proximity of the gulls' nests; that part of the island where fewest gulls were breeding was little grazed by the sheep. There it was quite evident that the gulls did not render the feed distasteful to the sheep, as the latter could have abandoned the part of the island where the birds were abundant."

Audubon work.—The Society was organized late in 1902 and now has a membership of 200, scattered throughout the State. One of its objects is "To cherish an interest in birds and encour-

age the study of Natural History." It now has six local branches. During the year large numbers of warning notices, furnished by the National Committee, have been distributed. By the courtesy of the Vice-President of the Maine Central R. R. Co. warning notices were displayed in all of the steamers of the line and also on the steamer 'Frank Jones' of the Portland, Mt. Desert and Machias Steamboat Co.

MASSACHUSETTS.—Legislation.—During the session of 1903 several improvements in the bird laws were made; herons and bitterns are now protected and the possession of any such bird or part thereof, whenever or wherever taken, shall be punished by a fine not exceeding ten dollars for every bird or part thereof; the open season for snipe and plover is shortened six weeks in the spring, shooting not being allowed after March 1. The anti-plumage wearing clause is made to include birds not heretofore protected. The legislative sessions are held annually.

Warden system.—One warden was employed on the Weepecket Islands, who reports that the terns breeding there passed an undisturbed summer and made a normal increase. In this connection it is a pleasure to refer to an article by Prof. Lynds Jones in 'The Wilson Bulletin,' No. 44, September, 1903, pp. 94-100, entitled, 'The Terns of the Weepecket Islands, Massachusetts.' This paper is a very valuable contribution to the life history of the terns and confirms in every respect the report of warden Charles O. Olsen.

Mr. George H. Mackay, who has so long and successfully protected the gulls and terns of the Muskegets, writes: "They have enjoyed the same protection as heretofore, having been cared for as usual. Both the Terns and Laughing Gulls have had a good season and the latter especially show a very considerable increase. I think, regarding bird protection as a whole, that we now have the public pretty well on our side. It has taken some years to accomplish it, but we are practically there. Little remains to be done now in this State except to prohibit the sale during the close season of shore, marsh, and beach birds taken outside the State."

At the suggestion of Mr. Mackay the special report of Mr. Frederick A. Homer regarding the terns of Penikese Island is appended in full. This report shows so conclusively what perfect

protection will do for a colony of birds, and is so encouraging to all bird lovers, that it is with pleasure the Committee gives it the widest publicity :

NEW BEDFORD, MASS., Oct. 8, 1903.

MR. GEORGE H. MACKAY,

My Dear Sir:—

Yours of Sept. 30 at hand and noted.

This has indeed been an exceptional year for the terns of Penikese. Their number seems to be increasing yearly, and all the people who have had occasion to notice them say, as I do, that they have never seen so many before. Having been disturbed but little during their breeding season the result was an early hatch of great numbers and a very early departure for their southern home. There have been no crippled young this year, as we had no sheep, and we have had to destroy only about half-a-dozen for damaged wings, etc.

A boatman of this city who displayed about a dozen eggs was arrested and fined \$20. He probably will not take any more eggs, and it will be a warning to others.

The writer spends four or five days of each week at the island from first of April to last of November, and there is hardly a person lands on the island without his cognizance or permission, and there is no reason why these birds should not increase rapidly. My observation leads me to state that they do increase, and if they were not molested at the south, where I understand they are captured in great numbers for their wings, Penikese would not be large enough for them. I have noticed for the past few years an increasing number nesting on the neighboring islands and on the main land to the north of them.

Of course one must take some interest in these creatures who visit you yearly whether you are willing or not, but I can see that in a few years, unless we extend our cultivated land, we shall have more of them than we care for; this is in the future, however.

My notes very carefully taken record the following :

May 7.— Early in the morning, weather cool and hazy with wind very light from the east, the terns arrived in full force.

May 24.— The first egg was found by the writer.

June 25.— The first young tern was found.

July 14.— Some of the young could fly.

August 4.— The terns commenced to leave in small flocks.

Sept. 14.— They had deserted us entirely.

My brother and myself have had a very enjoyable season at the island in spite of the rather unfavorable summer weather; now we are having the weather of the year for our pleasure.

We have had no plover at the island yet, in fact very few shore birds stopped here.

Yours, with kind regards,

(Signed) FREDK. A. HOMER.

Mr. Jno. E. Howland of Vineyard Haven, a true sportsman who takes great interest in the protection of birds, writes: "We had more Heath Hens on the Island the past fall than in any season for fifteen years past. I was at the South Shore a number of times, and should say unquestionably all gulls that summer with us were more numerous than a year ago. I have never seen more Laughing Gulls about than this year.

"Regarding the rookery of Night Herons, I am pleased to say that, as far as I know, not a gun was fired or an egg taken. Our club own both sides of this rookery and we hope to purchase this piece; we have about four hundred acres in two plots. The Heath-hen if let alone for a few years will be quite plenty. Quail were more numerous than any season in ten years past."

Mr. Ralph Hoffmann, a member of the A. O. U. Protection Committee, reports as follows: "The beneficial hawks and owls are still outside the pale. We hope to do something for them this winter.

"The question of further protection for shore birds is one that has especial interest for the writer of this report. I should like to see the open season for the big birds shortened, and the little birds, including the Least, the Semipalmated, Bonaparte's, Solitary, and Spotted Sandpipers, the two Ring-necks and the Sanderling, excluded from the list of game birds and protected throughout the year. These confiding birds do not offer sport in the sense in which the more wary birds are said to offer it, and a community that is becoming steadily more interested in living birds can put these birds to a better use than as food. I venture to prophesy that it will at some future time seem as strange to us to offer peep in the market as it does now to see sky-larks in the French and Italian markets.

"Capt. Collins has, as heretofore, seen to it that existing laws for the protection of birds are well enforced."

Audubon work.—The report of the Society shows continued and successful activity. "Since the last report the Society has gained 346 members, making the total number of persons enrolled 5,708. There are now 116 local secretaries, covering 117 places.

"The work of distributing circulars, including a large number of Educational Leaflets, has been carried on as extensively as last

year, and a good number of copies of the laws have been posted. Two illustrated, traveling lectures have been almost constantly in use, and many expressions of appreciation have been received. Four traveling libraries have been circulated continuously.

"All violations of law brought to the notice of the Society have been reported to the State officers, the Fish and Game Commission.

"There has been a good demand for the two bird charts published by the Society, and a new calendar for 1904, is to be issued this fall.

"The following meetings have been held: A course of six lectures, by Mr. Frank M. Chapman; a free lecture or public meeting, by Mr. William Lyman Underwood, which was much enjoyed; and a field meeting, or bird walk, open to Associate members, to which a few Junior members were invited.

"A suggestion received by us could, perhaps, be best carried out by the National Committee, if it approved the plan, and I am asked by our Directors to refer it to you for consideration, namely, an exhibit at the World's Fair in St. Louis, in 1904. Such an exhibit, if participated in by all, or by most of the societies, would show something of the work that is being done, and open the eyes of those who have not yet considered the subject. The leaflets and specialties (such as our bird charts and calendars) published by each society could be shown, and the addition of stuffed birds from which the feathers most objected to are taken, together with a few beautiful hats that are approved (with perhaps a few objectionable ones as a contrast), would make it interesting and striking."

MARYLAND.—*Legislation.*—The next session of the legislature will commence in January, 1904, and an effort should be made to amend the present law so it will follow more closely the A. O. U. model law.

Two of the most valuable birds in the State, *i. e.*, the Flicker and Mourning Dove, do not receive full protection. This is a short-sighted policy, as both are far more valuable as insect and weed-seed destroyers than they are for food. The State Fish and Game Protective Association should take this matter in hand and urge the substitution of the A. O. U. model law for the present statute.

Warden work.—No wardens were employed by the Thayer Fund.

Audubon work.—The Society seems to have become moribund. This is to be regretted, as the necessity for active protection and educational work was never greater than at the present time, nor was there ever a period in the history of bird protection when so many people are ready to take an interest, if the matter is properly presented to them. The National Committee is small in numbers and has so large a field to cover that it necessarily depends upon local effort to accomplish local good.

MICHIGAN.—*Legislation.*—As proposed in the last annual report, an effort was made to amend very slightly Section 14, Public Acts of 1901. The amendment passed the House but was not successful in the Senate, therefore the non-game bird law is unchanged. The next session of the legislature will be in 1905.

Warden work.—One warden was employed to guard a very large colony of Herring Gulls, which occupy a rocky island in the northwestern part of Lake Superior, just south of the International Boundary. These birds had an uninterrupted breeding season and consequently a normal increase.

It was discovered that a taxidermist of Detroit was preparing for millinery use gulls and terns contrary to law. The matter was brought to the attention of the proper authorities, and they interviewed the party, who did not deny the fact, but promised not to offend any longer.

Audubon work.—During the present year the Michigan Ornithological Club was reorganized. One of its objects is the study and protection of birds. It publishes a quarterly journal devoted to birds and is thus doing a valuable educational work.

MINNESOTA.—*Legislation.*—During the session of 1903 the A. O. U. model law was adopted. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—The Secretary reports: "During the year several articles on care and protection of birds have been published in our papers, upon request of the Society.

"A society has been organized by Mrs. Mary E. Lewis at Grand Rapids, Minn.

"Mrs. J. B. Hudson, of Lake City, again exhibited her collection of birds' nests at the State Fair, while Mrs. Chas. W. Aker exhibited weeds furnishing food for birds.

"Next year we hope to obtain slides for stereopticon lectures."

The Duluth Humane Society is taking an active interest in bird protection and offers a reward of \$10 for information which will lead to the arrest and conviction of any person killing song birds or robbing nests.

MISSISSIPPI.—*Legislation.*—Section 1134 of the Annotated Code, 1892, protects three species of non-game birds, *i. e.*, the Mockingbird, Catbird and Thrush; all of the other valuable non-game birds are without protection.

There is ample reason for the following editorial in 'The Meridian (Miss.) State': "Bird protection is going to be made an economic issue in every Southern State before many days, and the army of sentimental advocates will be reinforced by the utilitarians, who, while caring nothing for the beauty of the feathered songster or the music he makes, are very much alive to his usefulness in exterminating insects that kill crops, and are determined to stay the hand of the snarer and wanton bird killer before it is too late and the insects have taken possession of the land. Wherever common sense prevails, this cause will find advocates, and the 'State' would like to see bird protection made an issue in Mississippi politics next year."

The next session of the legislature will commence in January, 1904, and it is the imperative duty of the members to pass the A. O. U. model law, which has already been adopted by the following Southern States: Virginia, Kentucky, North Carolina, Tennessee, Georgia, Florida, Arkansas, and Texas.

South Carolina, Alabama, Mississippi and Louisiana are the only Southern Coast States that give none or but little protection to their valuable birds.

MISSOURI.—*Legislation.*—None was accomplished. Why the effort for a satisfactory law was defeated is best told by officers of the Audubon Society.

"And what of Missouri? Solitary and alone she stands in her humiliation and helplessness. Her general assembly has adjourned with contemptuous indifference toward her needs in

this regard, leaving the song birds of her forests, the game birds of her fields and mountains, and the fish of her sparkling streams at the mercy of the market hunter and the ruthless destroyer, the patrons of cold storage warehouses, the trapper and the dynamiter, all of whom may soon be expected to wipe out what little wild life yet remains in the State, after the previous years of unbridled and defiant slaughter.

"Why does Missouri occupy this unenviable position? For a year or more the Secretary of this Society, assisted by the two other members of its Executive Committee, has been laboriously at work drafting and creating a bill which has been pronounced nearly perfect by the judicial and expert authorities of other protected States, by the U. S. Department of Agriculture, and by various Agricultural and Horticultural Societies of Missouri. The bill was submitted to the Joint Committee upon bird and game legislation in the Senate and House at Jefferson City and, with a few unimportant changes, adopted as their own. The two committees were not only satisfied with the bill, but were in a measure enthusiastic over it. No doubts were expressed about its passage; but, in the meantime, delegations from the game dealers and patrons of cold storage warehouses visited Jefferson City to oppose the bill. Immediately after their departure enthusiasm for the bill waned in the Senate, and when it was reported a furious onslaught was made upon it by a senator who led the opposition to a similar bill two years ago. The bill was loaded down with injurious amendments, and sent back to the committee, where it slept forever afterwards, despite the efforts of the Audubon Society to have it reported; the bill died with the session without the Senate getting an opportunity for a final vote.

"In the House the bill was never reported, but remained in the hands of the committee. It is unnecessary for us to make any statement as to why the bill was not pushed in the Senate for he who reads can understand.

"Gov. Dockery's request in a special message to the General Assembly for effective game and bird legislation, the pleadings of thousands of Missourians and the Press throughout the State to enact better protective laws, were treated with the utmost contempt and disregard by the joint committee on bird and game legislation."

Some further light is thrown on this matter by the St. Louis 'Star' in its edition of July 1: "About the cruelest thing perpetrated by the boodlers in the last Legislature was to defeat the bill of the Audubon Society for the protection of the birds. Men must be greedy indeed, when protection must be bought for the feathered songsters."

The next session of legislature will be held in 1905.

Warden system.—No wardens employed by the Thayer Fund.

Audubon work.—The officers of the Audubon Society, with commendable pluck and nerve, say: "Notwithstanding the failure to get legislation at the recent session, the Audubon Society does not purpose to give up the fight. It believes the great majority of the people of Missouri are in favor of bird, fish and game protection, and it further believes that their voice must finally be heard."

MONTANA.—*Legislation.*—The non-game bird law is imperfect, inadequate and not enforcible, as the penalty is altogether too severe. The ordinary juryman will not convict when a penalty is out of all proportion to the magnitude of the violation.

The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—There is no society in the State, and seemingly little interest exhibited by the citizens, either in bird study or protection.

The press of Montana should agitate the matter and enlist the sympathy of the public in this important subject.

NEBRASKA.—*Legislation.*—No change in the non-game bird law. At the last session of the legislature a law was passed prohibiting pigeon shoots at traps. This excellent measure was the result of the united efforts of the Nebraska Humane Society and the Omaha Audubon Society.

The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed in this State.

Audubon work.—The Nebraska Ornithologists' Union is doing excellent work in popularizing the study of birds in the State and in uniting all the students in a Union that cannot help exerting a good influence for bird protection. "At its last annual meeting the

Union elected enough new members to make the total present membership reach the goodly number of nearly two hundred, and it has also ratified all that has been done in connection with establishing an Audubon auxiliary in the State.

"The amount of bird protection sentiment which we found in the State Legislature was something most gratifying. There are three members of the present State Legislature who are members of our Society.

"At the State Horticultural Society the sentiment in favor of bird protection developed in the discussions was not only unanimous but surprisingly strong."

The Department of Public Instruction has issued a pamphlet for the use of the schools of the State, entitled 'Special Day Programs,' among which is 'Bird Day'. Thirty-three pages of valuable ornithological matter is presented in a popular form that teachers can use to advantage to interest and instruct the children.

An independent society has been organized in Omaha that has been doing an aggressive work among the children. The Secretary presents the following very interesting report:

"The Omaha Audubon Society was organized June 23, 1902. In looking back over the fourteen months of the life of our Society, the Secretary is more gratified than otherwise, not that we have accomplished so very much, but that we are in a way now to do much.

"Our energies so far have been expended upon the children; and we consider our greatest accomplishment the enrolling of over ten thousand junior members last spring. More than fifteen thousand Audubon buttons were sold to school children in the year. We have chosen the Meadowlark as our representative bird; and his friends are many in the State. We enjoy the enthusiastic coöperation of the teachers, many of whom are numbered among our members.

"During the year some thirty-five different schools were visited by our President, Dr. Towne, and Vice-Presidents, Arthur Pearse and Rev. John Williams. The children have taken up the work with an enthusiasm very gratifying. We have gained the friendly coöperation of the police and have printed over the signature of the Chief of Police, warnings against the destruction of birds, their

nests and eggs. These warnings are posted in the parks, woods, and all places frequented by birds. We discovered there was a veritable egg collecting industry among boys; this we reported to the game warden and the police of the city, and it will be stopped.

"We have no arrests to report, but a number of 'conversions', results of mild persuasion.

"We were instrumental in the passing of the Loomis bill prohibiting live bird-trap shooting. Another bill of ours, prohibiting the plucking of live birds or fowls, was passed and went into effect the first of last July. We presented a resolution at the last general meeting of the Woman's Club endorsing the action of the New York Audubon Society and Millinery Merchants Protective Association, which was passed; nearly all the women present pledged themselves not to wear the plumage of any of the prohibited birds. We are now trying to bring about an agreement with the retail millinery trade of this city.

"This may look like a small year's work, but it was done by busy people. We have been sorely hampered by lack of funds, and for that reason, our distribution of circulars and literature has been far from what we would have wished.

"We have great hopes for the coming year. We intend this winter to extend our paying memberships and otherwise increase our treasury that we may be able to carry out our plans for literature, tracts, etc. We are desirous of placing the charts of the Massachusetts Society in our schools."

NEVADA. — *Legislation.* — In some respects the non-game bird law is good, but it needs to be made more comprehensive in order to protect the beneficial hawks and owls, and doves at all times instead of only a portion of the year. The next session of the legislature convenes in 1905.

Warden system. — No wardens were employed. There are many shallow lakes and tule marshes in Nevada where large numbers of birds still breed. If the funds at the disposal of the Committee during 1904 will permit the expenditure, wardens will be engaged to protect the grebes, gulls, terns, ducks, avocets, herons, pelicans and other water loving birds during the breeding season.

Audubon work. — No society has as yet been organized in this State.

NEW HAMPSHIRE.—*Legislation.*—No change in law. A. O. U. model law in force.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—The Secretary submits the following résumé: "The work of the Audubon Society has been substantially a continuation of that of last year.

"The illustrated lecture entitled 'Our Personal Friends, the Birds,' with the accompanying lantern, has been loaned to all who applied for it. The circulating library has proved to be very welcome in the small town where books concerning birds are difficult to obtain. Leaflets and circulars have been distributed at large. Publications which have been specially in demand are Mr. Hoffmann's 'Help to Bird Study,' Miss Merriam's 'How Birds affect Farm and Garden,' and Prof. Weed's 'Mission of the Birds.' Other pamphlets issued by the Biological Survey and the A. O. U. have proved to be of great interest. Special effort will be made next year to circulate the series of Educational Leaflets published under the auspices of the National Committee of Audubon Societies.

"The Bird Charts are still in demand and have been supplied free of cost to schools which were not in condition to purchase them.

"The 'Outline of Bird Study,' prepared by our Society and adopted by the school committee of Manchester, has been introduced into several other cities and towns.

"The State Fish and Game Commission has coöperated with us in the enforcement of the existing bird laws, which are in conformity with the A. O. U. model law. Fines have been imposed by the commissioners. As there has been no appeal from their action no cases have as yet come into court."

NEW JERSEY.—*Legislation.*—The A. O. U. model is still in force. During the legislative session of 1903 the clause in the game law permitting the killing of Flickers for two months in the year was repealed and spring shooting of snipe or shore birds was stopped. These amendments were decidedly advance movements. New Jersey will do well to follow the example of New York and Virginia in stopping spring shooting of wild ducks and geese. It

is wrong in principle and wasteful to kill any game birds while they are on their northward migration to their breeding homes.

Warden system.—Two wardens were employed and were visited by Mr. W. D. W. Miller, a member of the A. O. U., who makes the following exhaustive report.

“Beach Haven.—On July 6 I arrived at the breeding grounds below Beach Haven, which are under the protection of Captain Rider of the United States Life Saving Station at this point. Here I saw over one hundred Laughing Gulls flying about over the grassy marshes where they breed. Noted less than half as many terns. All of whom I inquired told me that the latter were scarce. Clapper Rails were common. With Captain Rider I searched for nests but was unable to find a single one of any kind. The reason for our failure was, according to the Captain, that the unusually high tides in June had swept away all the eggs and young of the gulls and rails. Why we could find no nests of the tern he was unable to say, as this bird nests on higher ground than the others.

“Of other birds noted the most interesting was the Piping Plover, and as there were two of these birds together it seems probable that they were breeding. Ospreys are scarce here.

“Stone Harbor.—I arrived at Captain Ludlam’s station at Stone Harbor on July 7, and stayed until the 9th. I found this warden greatly interested in the birds and their preservation, and from all I could hear he had strictly protected the birds in his vicinity. According to him the number of Clapper Rails which started to breed had been very large this year and the gulls had been of about the same abundance as the year before. The number of gulls’ nests had been approximately three hundred, but all of these, together with the young rails, had been completely destroyed by the abnormally high tides of June 22 to 25.

“I saw several hundred gulls at one time over the breeding marshes here. Found none of their nests, however. The captain had been told that the gulls do not make a second attempt to breed if their first set is destroyed, and he now believes this to be true, for he had seen no signs of rebuilding since the tides had subsided nearly two weeks before. Clapper Rails were heard commonly, and with little effort we found two nests, containing six eggs each.

Terns were very scarce here, apparently even more so than at Beach Haven, for I saw not more than fifteen all told.

"I noted no Least Terns nor Black Skimmers at either locality visited. Both species formerly occurred at these points.

"As being practically the only breeding grounds of Laughing Gulls and Common Terns on the New Jersey coast at the present time, it seems to me very desirable that the protection of these two colonies should be continued. The success of the terns largely depends upon the prohibition of all spring shooting after they have reached their breeding grounds. I was informed by Captain Ludlam that large numbers of terns arrived at his locality in the spring but were driven away by the shooting, a very small number remaining to breed. If spring shooting is stopped and the birds rigorously protected the terns will undoubtedly increase in numbers."

Audubon work.—The Secretary reports as follows: "The Audubon Society has 566 members, the greater part of the new ones being children. During the past year two leaflets have been written by members of the Society. Altogether over 1,000 leaflets have been sent out, and about 125 letters written.

"An effort will be made during the coming year to insure the protection of Robins, and also to create more interest in birds among the children in the State.

"Fifty-three towns and fifteen counties are represented in the Society."

NEW MEXICO. — *Legislation.* — The non-game bird law of this State is fairly comprehensive and if properly enforced will protect the birds. In addition, Sec. 3, of Chapter 51, Acts of 1899, gives authority for any owner or lessee of lands to post his premises and thus prevent any person shooting thereon. A violation of this provision is a misdemeanor.

The next session of legislature will be held in 1905.

Warden work.—No wardens were employed by the Thayer Fund.

Audubon Society.—There is none at present in the Territory.

NEW YORK. — *Legislation.*—No change was made in the non-game bird law; however, the game law was greatly improved by the passage of a bill introduced by the Hon. Elon R. Brown abol-

ishing spring shooting of ducks and geese. These birds cannot now be legally killed in New York State between January first and September fifteenth. Other beneficial amendments were made regarding possession, sale and transportation of woodcock, quail and grouse.

Sessions of the legislature are held annually.

Warden system.— Three wardens were employed by the Thayer Fund to care for the breeding colonies of terns on the north and south ends of Gardiner's Island and on Fisher's Island. The latter colony suffered somewhat from the swarms of rats on the island. The warden used poison to destroy them and in one day found 47 dead ones near the nesting grounds. The south colony on Gardiner's Island was flooded early in the season and many eggs were destroyed, while the north colony was raided by a boat's crew from the U. S. vessel 'Chesapeake', who took many eggs. Notwithstanding these unfortunate incidents the birds made a fine increase. During the southward migration in September larger numbers of terns were seen on the New York coast than for many years. In New York Harbor, as far up as the Jersey ferries, it was not unusual to see a score or more of them while crossing the Hudson River.

During the past year suits were commenced against two of the large department stores of New York for having on sale protected birds. In both cases the defendants settled by payment of a nominal fine and the entire costs in the cases, thus establishing the legal fact that protected birds cannot be sold for millinery ornaments in New York. These suits were started before the agreement was made between the Millinery Merchants Protective Association and the New York Audubon Society and the American Ornithologists' Union.

In many parts of the State the farmers and sportsmen are organizing associations for the protection of game and birds in their several localities. These societies will be the means of doing a great amount of real protective work.

The Chairman of the National Committee has suspected for some time that illegal shipments of live native birds were being made from the port of New York. This suspicion was verified last spring when he caught a dealer, one G. Seville, with a large

number of Bluebirds, Red-winged Blackbirds, Song and Savanna Sparrows in his possession. The arrest of the dealer followed; he escaped from the State and is now a fugitive from justice.

Audubon work.—The Society is aggressively active, as its report shows: "The Society has kept steadily at work during the past year, but there is no gauge to measure the annual harvest. It is to be hoped that the seed sown may be of a perennial nature.

"Immediately following the annual meeting last year in October, 1500 warning notices to dealers were sent out, calling the attention of the entire millinery and game trade of New York to the law of the State for the protection of birds, and stating that the New York Audubon Society would bring action in every case of violation brought to its notice. The determined and dignified stand thus taken was, undoubtedly, directly responsible for the proposition made last spring by the wholesale milliners of New York which resulted in the step, considered by many the most important event in the history of bird protection, namely, the agreement between the Millinery Merchants' Protective Association on the one hand, and the Audubon Society of the State of New York on the other. The conditions of this agreement saves our American song birds from the clutches of the millinery trade, and banishes from the American market all gulls, terns, grebes, hummingbirds, and after January, 1904, even the 'Bonnet Martyr,' the egret, for the term of three years.

"In addition to the 'Warning to Dealers,' this year the Society has issued 'The Aigrette: An Appeal to Women,' by Mrs. May Riley Smith.

"The Educational Leaflets issued by the National Committee, of which we are sending out 10,000 copies, we find invaluable. Would that every child in the State might own a set of them!

"The law posters have been more widely distributed this year than ever. Finding that lack of sufficient appropriation would prevent the Forest, Fish and Game Commission from complying with our request that the law should be posted on all lands belonging to the State, the Society furnished 1,000 muslin posters, which the Commission placed throughout the Adirondack region. The secretary of the Adirondack Guide Association was also sup-

plied with 100 muslin posters, which were scattered throughout the Fulton Chain. In all nearly 4,000 posters have been distributed throughout the State by the Society.

"That the attempt to place them in all stations of the New York Central R. R. system met with failure is a matter of regret.

"A large quantity of our literature was sent to the State Fair at Syracuse.

"The total number of leaflets distributed during the year is over 18,000.

"A lecture by Miss Mary Mann Miller, especially adapted to children, has been added to our lantern outfit. Not as many applications for the use of the lantern and slides have been received this year as might be wished, but we hope, by means of this new lecture, to greatly increase the demand for them. The outfit will be loaned to any responsible person in the State of New York, who will comply with the conditions.

"The Society has given out many more sets of the colored wall charts issued by the Massachusetts Audubon Society. Besides being loaned to school and club rooms, these charts have been placed, in many instances, during the summer months, in public libraries, thus keeping them constantly in use. Most gratifying reports come to us of the pleasure they give and the interest in bird study they arouse.

"Twelve new Local Secretaries have been appointed during the year.

"The New York Society grows slowly; the total membership is 4,207.

"Mr. Chapman kindly gave a lecture for the benefit of the Society, at Delmonico's, which netted over \$350. This financial help enabled the Society to contribute \$100 toward the funds of the National Committee, and no money has been more gladly paid out from the treasury of the New York Audubon Society.

"The marked increase in requests for lecturers that have come to the Society during the year, indicates a strong advance in popular interest in bird study.

"The New York State Assembly of Mothers' annually sends for a report of the Society's work. This organization is one with which it is most important to be affiliated.

"A constant watch is kept at Albany upon all bills introduced in the legislature, that no backward step shall be taken to disturb the present law.

"Owing, undoubtedly, to the general circulation of the 'posters,' many complaints of illegal shooting have been reported. In one instance a farmer was charged with boasting of having shot 25 robins in one morning; due steps were taken, the local warden informed, and Audubon leaflets sent to the offender. A letter has been received from the latter saying that he had been maligned, that he realized now the value of the birds to agriculture; whether this change of opinion is due entirely to the higher education produced by reading Audubon leaflets, or comes from a salutary fear of legal action on the part of the Society, the result is satisfactory, in that the popping of the gun is diminished.

"The New York Society has lately run upon a rock which has for a time wrecked our hopes in one community. A local secretary had succeeded in attracting a little group of children and was entering enthusiastically upon the work when a man appeared shooting promiscuously, and telling the inhabitants the secretary had no business to interfere with him, as he had a 'permit.' In a short time the town was demoralized, and the secretary disheartened. The matter ought to meet with the utter disapprobation of all bird lovers, for it shows a serious danger which in its moral effects might prove of even greater harm than 'murderous millinery.'"

NORTH CAROLINA. — *Legislation.* — During the last session of the legislature a game and non-game bird law was enacted which embodied all the main features of the A. O. U. model law. In other respects the game law is far in advance of any law that has ever before been in force in this State.

Warden system. — During the past breeding season three wardens were employed, all of whom did effective and valuable service. From their very frequent reports to Secretary Pearson of the Audubon Society, under whose direction they worked, we have the assurance that the coast breeding birds, such as gulls, terns, skimmers and snipe, have enjoyed a freedom from persecution that has long been absent. The reports show a very material increase in the bird life of the coast region. It is proposed, as far as the

funds at the disposal of the National Committee will permit, to continue the protection in order to save from destruction the water birds that migrate from the north and winter on the North Carolina coast. It seems unwise to preserve the bird life on the North Atlantic coast if it is not to be cared for in its winter home. Of one of the wardens Secretary Pearson says: "We must keep this valuable man in our service. I have never met a man who knows him who does not declare him an exceedingly strong and fine character. I believe most profoundly that he is doing a grand work in educating public sentiment in that coast country."

The shallow sounds and water ways of the North Carolina coast are so very extensive that it seems imperative that the chief warden should be furnished with a good seaworthy power boat, in order to move rapidly from place to place. The naphtha launch experiment in Florida has proved so very successful that the National Committee feels warranted in urging the friends of bird protection to make special contributions toward a fund for the immediate purchase of two 25-foot naphtha launches, one for use in North Carolina, and the second in Northampton and Accomac counties in Virginia.

Audubon work. — Audubon work is progressing finely in this State. Some details are furnished by the Secretary: "The work of the Audubon Society of North Carolina for the past year may be summed up under four heads.

"*First*, the securing of legislation which extends protection to the non-game birds, and gives the Audubon Society the power of naming game wardens throughout the State.

"*Second*, Efforts to build up the membership of the Society.

"*Third*, The cultivation of a better sentiment throughout the State for bird and game protection. To this end over fifty thousand circulars have been distributed, articles prepared and published in the press of the State, and the Secretary has given more than thirty public lectures and talks on the subject. A junior department has been established, with Mrs. W. C. A. Hammel, of Greensboro, as Secretary.

"*Fourth*, The securing and paying of Bird and Game Wardens. By the aid of the Thayer Fund three wardens were kept on the coast the past summer with the result that about two thousand

Wilson's Terns, Royal Terns and Black Skimmers were reared, where heretofore probably not over one hundred have been reared annually.

"Eighteen wardens with full police powers are now in the field. Within the last four months these wardens have secured twenty-two convictions for violations of the Bird and Game laws.

Regular members	(annual fee, 25c.)	.	.	.	350
Junior members	(" " 10c.)	.	.	.	400
Sustaining members	(" " \$5.00)	.	.	.	331
Life members	(\$10.00, paid once)	.	.	.	25
Total					1106 "

OHIO.—*Legislation.*—No change in the law, the A. O. U. model law being still in force. Next session of legislature, January, 1904.

One of the most important duties of the Audubon Society during the coming legislative season will be to see that no amendments are made to the present perfectly satisfactory non-game bird law. Extreme vigilance and the examination of every game or bird bill that is introduced is the only way to prevent adverse legislation.

The following item appeared in the 'Citizen' of October 30: "Game Law Changes. The coming legislature will be asked to repeal the dove clause in the game law." To offset the above the Audubon Society should circulate freely throughout the State, Educational Leaflet No. 2, which conclusively proves that the dove is one of the most valuable birds existing, as it is the greatest of the weed-seed destroyers.

The narrow escapes in Florida and Wyoming should be an object lesson to the Audubon societies in all the States that have legislative sessions in 1904.

Warden work.—No wardens were employed by the Thayer Fund. However, those employed by the State are extremely active and are enforcing the statutes.

Audubon work.—The comprehensive report of the Recording Secretary is herewith submitted: "The Ohio Society has grown rapidly during the past year, having now a membership of about 350, exclusive of junior members and of the chapters which have this year been formed in Cleveland, Columbus and Home City.

Increased attendance at our monthly meetings and the constantly increasing demand for literature made on the Corresponding Secretary indicate the growing influence and force of our work.

"One public meeting was held during the year, an illustrated lecture by Mr. William Hubbell Fisher, the President of the Society, on the 'Folk-lore of the Stork.' The lecture was preceded by a few remarks on Audubon work, thus bringing the matter of bird protection before many to whom it was a new subject.

"The lecture was well attended and greatly enjoyed, and its results were seen immediately in the admission of many new members, the formation of a branch society in a suburban town, and a large influx of back dues from delinquent members. A small admission fee was charged, and the proceeds considerably increased the funds of the Society.

"In addition to Mr. Fisher's lecture, addresses at the monthly meetings have been made. The public are always invited to the meetings, at which the business is disposed of as quickly as possible in order to give time for the address, field notes, and general discussion. The members of the Society give frequent talks in the schools of Cincinnati and suburbs, and assisted the schools in the celebration of Arbor Day by supplying speakers and sending to each school a copy of a circular letter to be read in connection with the exercises. A circular letter was also sent by the corresponding Secretary to the various Teachers' Institutes held throughout the State. The result was especially encouraging at Trimble, Ohio, where the wish to form a branch society is manifested.

"The warning notices furnished by the Thayer Fund have been posted widely through the State, and a large amount of literature has been distributed by the Corresponding Secretary. The schools, especially in Hamilton County, work with us, and the results are encouraging, though we constantly feel that the most which we can do is much less than is needed for the work.

"The Cuvier Club of Cincinnati has worked with us on many occasions, furnishing us with a meeting place, and doing splendid work last year in the enforcement of the bird law. The A. O. U. law has been a great satisfaction to all interested in bird protection, and milliners throughout the State have been successfully prosecuted for its violation.

"In the ensuing year the Society expects to continue the same lines. We shall repeat and extend our aggressive work in the schools. Most of the members of the central society are Cincinnatians, but we hope this year to extend our work more widely through the State and form more branch societies, which can assist us in this. A law committee will be appointed to take charge of all questions that may arise in the enforcement of the bird laws."

OKLAHOMA TERRITORY.—*Legislation.*—An effort was made to pass the A. O. U. model law, but it was not successful, notwithstanding it was advocated by some very earnest people.

The present law is worthless, but it cannot be improved until the next session of the legislature, which will be held in 1905.

Warden system.—No wardens were employed in this Territory, owing to lack of legal backing.

Audubon work.—The Society is local and seemingly inactive; no reports or communications have been received recently from it by the National Committee.

OREGON.—*Legislation.*—During the present year the A. O. U. model law was adopted in this State. Fortunately for the protection Committee and the citizens of Oregon one of our members is a resident. He took the legislative work in charge and without any compensation except that which always is received by a person who performs a civic duty, camped over four weeks at the Capitol. His experiences, which are not strange to other members of the Committee, are so instructive to the public, that they are given in some detail: "The A. O. U. Bird bill passed the lower house to-day (Feb. 4, 1903). This is my fourth week here and I think the last, as the senate will not take so much time to consider the bill. I had the bill all but passed but found that the committee had cut it up so that its author would not know it. In Section 7 they wished to include the crow among the prohibited birds, to which I made no objection and told them to insert the name after the English Sparrow but otherwise to let the section remain unchanged; a few moments before the bill was to come up for final vote I learned the committee had also included "All kinds of hawks, owls," and ending with the words "Passer domesticus" as a kind of amen, to give an air of wisdom to the rest of the

work, though the "English Sparrow" was the first bird mentioned in the excluded list. My only recourse was to have the bill referred again to the committee, and we began all over. To prevent opposition from those bound to consider certain species harmful, I revised the section and put in a clause legalizing the killing of birds when in the act of catching domestic fowls or destroying growing crops, throwing the burden of proof on the defendant; this pleased the committee and passed the bill."

Warden work.—No wardens were employed by the Thayer Fund.

Audubon work.—The State Society still continues its activity, especially along educational lines, as its report shows: "The A. O. U. model bird law has passed the legislature this year and Oregon is now one of the States whose bird laws are entirely satisfactory. It is largely due to the efforts of Mr. Clarence Gilbert and Mr. A. W. Anthony that this improvement has become possible.

"A large number of notices have been placed throughout the country giving a list of birds protected by the model law; these have proved particularly effective. During the occasional storms along the coast towns the Alaska Thrush and Meadowlarks are driven to the tide lands where formerly they were slaughtered in great numbers. This year very few were killed, the Alaska Thrush being seen in numbers about the homes.

"Six Bird Clubs are in active work in the State. In several of these societies prizes have been offered to the school children for the best essays on Oregon birds and their habits. The John Burroughs Club of Portland offers an annual prize to all school children of Oregon of the ninth grade for knowledge of native birds, and has, within the past few weeks begun a regular department in the 'Club Journal'; other literary work is also in progress.

"The State Society was this year handicapped in its work, but hopes next year to carry out the following plan: to reach by personal correspondence the teachers of the rural districts, so widely scattered throughout the State, and to offer special prizes to the pupils for the best essays on personal observations of the birds. The writer of the best essay is to receive a special prize.

"In regard to work in rural districts and small towns, it is sug-

gested that the National Committee send to the country papers from time to time short news items of interest relating to its work, and request publication of same. We believe that especially in small towns throughout the West such a course would be beneficial."

PENNSYLVANIA. — *Legislation.* — There has been no change in the law; the same doubt as to which non-game law is in force still exists. This matter should be settled by a test case. The next session of the legislature will be held in 1905.

Warden system. — No wardens were employed by the Thayer Fund.

Audubon work. — The report of the Secretary is as follows: "There has been the usual increase in membership, and several new local secretaries have started to work in towns that have heretofore had no members. Educational leaflets have been distributed and copies of the bird laws posted wherever it has been possible.

"Miss Justice continues her good work with the traveling libraries, and reports 14 libraries of 10 books each, which have been sent to 11 counties during the year."

The society issued the following excellent circular of instruction to its members: "The constable of each township or borough in Pennsylvania is the person authorized by law to arrest violators of the bird laws, and he must make a report under oath to the Court of Quarter Sessions of his county at each term, of all violations occurring in his township or brought to his notice.

"Members of the Audubon Society wishing to have violators of the law arrested should bring the matter to the attention of the constable of their township and see that he follows it and reports on it as required. If he fails he should be reported to the Judge of the Court. A constable failing in his duty can be prosecuted and fined \$50."

The National Committee commend this plan to the other Audubon societies.

Prof. H. A. Surface, of the Pennsylvania Department of Agriculture, is doing a most excellent educational work. He is issuing for free distribution in the State, monthly bulletins of the Division of Zoölogy. These are filled with just the kind of scientific

knowledge put in popular form that the citizens should have, especially those that live in the rural districts, or are interested in any branch of agriculture. It would be a very wise expenditure of public money for every State to follow the example set by Pennsylvania and Delaware.

RHODE ISLAND.—*Legislation.*—There was no change in the law at the session of the legislature. At the next session an effort should be made to protect all the beneficial hawks and owls. Sessions of the legislature are held annually.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—The Secretary reports: "The work of the year has been confined to the regular work of the Board of Directors and of the various committees. We have seven local secretaries in the State. Our traveling lecture has been used in many places and our library is constantly loaned. In Providence two lectures have been given under the auspices of the society, 'The Bird Life of Islands,' by Mr. Frank M. Chapman, and another by Mr. F. Schuyler Mathews. We have assisted financially in placing bird charts in the country schools of the State.

"A millinery committee has sent circulars to all the local milliners, but it was thought best not to go on with the work when the Board of Directors voted to concur in the action of the National Committee and the Milliners' Protective Association.

"We have distributed Audubon literature throughout the year.

"For the coming year the Board of Directors feel strongly that our work should be chiefly in the line of strengthening our own Society by appointing more local secretaries, by securing new members, and stimulating interest throughout the State. We have been asked by the Bird Commissioners to assist them by securing deputies in various towns. We are at present striving to find persons ready to act in this capacity."

Later the Secretary wrote: "Since I sent the report of our Society we have secured four new local secretaries in towns previously without branches and have aided the Bird Commissioner in finding persons to act as deputies. Just at present there is a good deal of interest in bird protection because of the wholesale slaughter of Robins and other song birds by Italians."

SOUTH CAROLINA.—Legislation.—The present law is unsatisfactory in that it is not comprehensive. During the 1904 session of the legislature an effort will be made to have the A. O. U. model law passed. South Carolina is the only Atlantic Coast State that has not adopted the model law. It is therefore very important that this extensive gap in the coast line should be closed, in order to fully protect all the existing breeding colonies of sea birds.

Warden system.—No wardens were employed by the Thayer Fund, nor can any money be used until legal protection is given the sea birds; as soon as this is done wardens will be secured to see that the laws are properly enforced.

Audubon work.—The small society that formerly existed has given no evidence of activity for a year or more; however, the press of the State shows an intelligent interest in bird protection. The following editorial from the 'State' of Columbia, of July 2, is worthy of the careful consideration of the citizens: "With the disappearance of bird life there has been a vast increase in uncanny insects. Almost every fruit, vegetable, shrub and flower has its own enemy, and gardeners are compelled to spend much time and money in fighting them. The shade trees of Columbia are dying rapidly and no one can or will check the disease. Something must be done at once to arrest the further march of destruction. A few thousand dollars a year, with the enforcement of laws against animal pests and human marauders, may result in the saving of millions of dollars to South Carolina. The responsibility rests with the legislature, and it cannot be laughed away."

TENNESSEE.—Legislation.—During the session of 1903 the A. O. U. model law was adopted. This admirable improvement was due entirely to the devoted and energetic work of Senator J. M. Graham, who introduced the bill in the Senate, assisted by Representative Birdsong in the House.

The initial movement in this great work was made many months before the legislature convened, by Senator Graham, who wrote to the National Committee for information regarding good bird legislation. From that day until the law went into effect he was untiring in his labors to give legal protection to the birds of Tennessee, thus conserving one of the best assets of the State. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund. The State officials, however, are alive to their duties. Mr. J. A. Acklen, State Game Warden, writes as follows: "The enforcement of our laws for the protection of both game and non-game birds is a difficult task in this State. I have labored for years on the subject, and only succeeded in our last Legislature in establishing the Department of Game, the whole expense of which Department I am bearing out of my individual means. You may judge from this as to how I feel on the subject."

Audubon work.—There is practically none done in the State at the present time. The following editorial from 'The Nashville American,' of March 19, is such excellent advice to farmers that it is given in full in the hope that many thousands of the tillers of the soil will read and follow its counsel: "A birdless land is a dreary land; where the silence is unbroken by the song of birds there is loneliness that is oppressive. Imagine a farm without the cheering presence and music of birds. Think of the fields and woods barren of feathered songsters. They are well worth protecting and preserving on purely sentimental grounds, but aside from sentiment they are worth protecting because of their great value to the farmer and gardener and to nearly every tree and flower that grows. They are as truly the friends of the farmer as the seasons—the wind and the rain and the sunshine, the light and warmth, the frost and dew, and all the elements of nature's alchemy. He is a primitive farmer who does not appreciate the value of birds."

TEXAS.—*Legislation.*—During the legislative session of 1903 a game and bird law was adopted that is one of the best in force in the United States. Section 2, which covers the non-game birds, is the A. O. U. model. The radical change caused by the passage of this most excellent and much needed legislation has caused a flutter of organized opposition to the enforcement of the law by the pothunters and market shooters, who are combining to test the constitutionality of the law. On the other hand, the true and enlightened sportsmen of the State, together with the bird lovers and others who believe that birds have an economic value, are prepared to defend the law and propose that it shall be upheld by the best legal talent obtainable. That the Commonwealth owns

the wild birds and animals found within its borders there is no doubt, and consequently has full police powers over them, and can say through the legislature when they can be killed and by whom, or can say that they shall not be killed at all, as has just been provided in the case of the non-game birds. (See the opinion of Judge Treiber, under Arkansas, *antea*, p. 111.)

Warden system. — No wardens were employed by the Thayer Fund, owing to the fact that the new law did not go into effect until after the breeding season was finished. In 1904 it is proposed to carefully guard any and all of the colonies of coast birds that are large enough to warrant the expenditure.

Audubon work. — There is one local society in the State; however, there is a great and growing interest in bird protection which must eventually result in the formation of a strong society. The limits of the State are so large that it seems desirable that at least four societies should be organized. The women's and farmers' clubs are doing effective work in the study and protection of birds. In this connection mention must again be made of the great services rendered to the State of Texas by Prof. H. P. Attwater, a member of the A. O. U., whose efforts were untiring to pass the new game law, and to bring to the knowledge of the agricultural folk of the State the true relation of birds to crops. Three thousand warning notices were furnished by the Thayer Fund and sent to Prof. Attwater, who has had them distributed throughout the State. The officials of the Southern Pacific and the San Antonio and Aransas Pass Railway Co., voluntarily offered to distribute and display in all of their stations in Texas copies of the warning notice. By this means a very wide distribution was given to the provisions of the new game law. This important and public spirited action should be followed by the officers of other railroad corporations, not only in Texas but throughout the United States.

Under the Federal Law, known as the Lacey Act, transportation companies are liable for carrying illegally killed game and birds, and therefore they should, as has been done by the above mentioned companies, make the game laws as widely known as possible, especially those laws that seek to prevent market shooting and pot-hunting for cold storage houses.

It is stated that the Mexican Boll Weevil destroyed 940,000

bales of Texas cotton in 1902, and a much larger amount in 1903. *Is not this a reason for caring for Texas birds?*

UTAH.—*Legislation.*—Although the non-game bird law was passed as late as 1899, it is not at all satisfactory, only a portion of the birds being given protection.

The agriculturists of the State, having the most direct monetary interest in this subject, should take the matter up at the next session of the legislature, which convenes in 1905.

Warden work.—No wardens were employed.

Audubon work.—There is no Audubon Society at present in the State. The press from time to time calls the attention of the citizens to the necessity for bird protection. The following excerpt from an editorial in the 'Utah Herald,' Salt Lake, is excellent:

"Protect the Birds. It is to be hoped that people who make a practice of killing the birds will not need more than a warning to induce them to desist. Should they continue, however, prosecutions should be instituted and convictions secured wherever possible. These birds are not fit for food. They serve a useful purpose in the destruction of insects that destroy fruit, grain and other necessary agricultural products, and they are entitled to the full protection of the law."

Mr. John A. Widtsoe, Director of the Agricultural Experiment Station at Logan, voices the true idea in the following words: "In the arid States, where animal and plant life is less abundant than in the humid States, it is very desirable to use every endeavor to protect the animals as well as the plants that we possess."

VERMONT.—*Legislation.*—The effort to pass the A. O. U. model law during the 1902 session of the legislature was not successful; the present law in many respects is a good one.

Warden system.—No special wardens were employed.

Audubon work.—The Corresponding Secretary gives the following report of the year's work: "The year 1903 has brought much encouragement to those interested in Audubon work in the State. Membership has not increased as rapidly as we could wish, but a sustained effort has been made to broaden the interest, and encourage among all our people a living interest in the living bird, for the enrichment of life from the æsthetic side.

"The subject of bird protection by the farmer, not legal protection, but individual protection, such as can result only from an intelligent comprehension of the economic value of birds to our agricultural interests, was ably presented by our member, Amos J. Eaton, at the Dairymen's meetings held last winter under the auspices of the State Board of Agriculture. No topic awakened a deeper interest. Mr. Eaton had only the Massachusetts charts for illustration. A lantern and slides would have been of great value, and we earnestly hope financial aid may come to us in this matter. Our wish is that this feature of the work may be extended through the Granges of the State.

"We have had the hearty co-operation of our State Superintendent of Education, Hon. Walter E. Ranger, who has also furnished us with much valuable printed matter for distribution, which was issued by the Board under his direction. The interest of bird study is deepening in our schools. We number among our members teachers in our normal schools, which will insure definite aid to those soon to be enrolled among our teachers.

"During the month of August the interests of the Audubon Society were presented at several of our summer schools, and met with much intelligent appreciation. Nature work in its largest sense, which means one's relations to the world about him, is the growing idea underlying the world of our educators.

"We have now three libraries in circulation among our schools. We place a copy of 'Bird Lore' upon the table in the reading room of our town library."

VIRGINIA.—*Legislation.*—During the last session of the legislature an excellent game law was adopted, including the main features of the A. O. U. model; besides this, spring shooting of snipe and shore birds was stopped, the open season for wild fowl and upland game birds was materially shortened, and the sale and export of game from the State was prohibited. For this admirable legislation special mention is made of the intelligent work of Senators Keezell, Halsey and McIlwaine, and Delegates Caton, Christian and Mathews, who were untiring in their efforts to make the game laws of Virginia stand in the front rank of modern and enlightened protective statutes. The next session of the legislature will be held in 1904.

Warden work.— Eight wardens were employed, as usual, to guard the very extensive series of breeding grounds in Northampton and Accomac Counties, which extend from the mouth of Chesapeake Bay northward to the Maryland line. Warning notices were prepared and were liberally posted throughout the State. The new law unfortunately did not go into effect until too late to prevent some eggging; however, the breeding birds had a reasonably favorable season and some increase was made. Before the next breeding season the public will have learned about the law and the penalties for its violation, and the moral effect will be good. The territory to be guarded is very large, is distant from dwellings, and it is difficult to prevent eggging, a custom that has been followed by the baymen for generations. There is urgent need for a naphtha launch, in order to have a single warden who can move rapidly from place to place. The warden should be appointed by the State authorities with full police powers; his compensation can be provided for by the Thayer Fund. From the reports of wardens and several well-known ornithologists who visited this territory during the past breeding season there seems to have been little or no mortality from shooting the adult birds. The bird colonies above referred to suffered an excessive mortality of young or unhatched eggs by reason of some exceptional high tides during June. Such mortality must be expected almost annually at breeding grounds that are at best not over one or two feet above the normal high tide mark. A severe and continued easterly storm on the Virginia coast brings in a tide that usually covers all but the highest portions of the beach and marshes. For this reason it is imperative that these colonies of sea and marsh birds should be carefully watched and protected from the raids of eggers and gunners.

Audubon work.— The Secretary reports as follows: "The Audubon Society of Virginia was organized Sept. 29, 1903, and has distributed a large number of warning notices supplied by the National Committee.

"A mass meeting of school children was held at Falls Church, when the school was presented with the Massachusetts Audubon Society Bird Charts.

"The Society is now planning to print copies of the game laws

in full for distribution throughout the State, and expects during the coming year to establish a large number of local societies, particular efforts being made to enlist the school children."

WASHINGTON. *Legislation.*—During the 1903 session of the legislature the A. O. U. model law was adopted. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—There is no society at present organized in the State, although inquiries have been made by persons interested in bird protection work in the schools which may result in one being formed at no very distant day.

WEST VIRGINIA. *Legislation.*—The present law is somewhat uncertain in its terms, but until the adoption of the A. O. U. model law can be secured, it will protect the valuable birds of the State, if it is properly enforced. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—There is no society of this name in the State, although the West Virginia State Protective Association is reported to be doing an excellent and aggressive work; it has not as yet become affiliated with the National Committee.

WISCONSIN. *Legislation.*—No change was made in the law; the A. O. U. model law is in force. The next session of the legislature will be held in 1905.

Warden system.—No wardens were employed by the Thayer Fund.

Audubon work.—The Secretary reports as follows: "During the year our Society has conducted the usual bird-study classes; the publication of its monthly magazine, 'By the Wayside,' has been continued, as has the circulation of the Society's slides and lecture; and the signing of an Audubon pledge by 1260 children in our public schools has been secured.

"The only work at present planned for the coming year is that of getting new lectures to send out with our slides. The school children are now so interested in birds that it no longer seems necessary to offer prizes for essays on birds. A milliner recently

said that she could no longer sell a hat with even a portion of a bird on it to any woman who had a child in our public schools.

"We are hoping to be able to get some one prominent in ornithology to lecture at our annual meeting next spring.

"The membership is now 22,214."

WYOMING.—*Legislation.*—No change; the A. O. U. model law is still in force. The next session of the legislature will be in 1905.

Warden system.—No wardens were employed under the Thayer Fund.

Audubon work.—Eternal vigilance is the price of good bird laws. How the Wyoming Audubon Society prevented the passage of an outrageous amendment to the present perfect law is best told by President F. E. Bond: "I learned from my home paper that three gun clubs in Cheyenne had held a mass meeting and adopted resolutions recommending amendment of a new game bill then pending in the legislature. One of these resolutions demanded that the Mourning Dove, which was protected by our 'model law' of 1901, be placed upon the list of game birds where it might be shot for sport and the table. I at once wrote to the Game and Fish Committee of both houses, the introducer of the bill, some influential State senators, and the officers of the Audubon Society, asking that the dove be let alone. My correspondence arrived too late to accomplish anything in the House for the bill had passed that body, with a dove slaughtering amendment, before the letters arrived. However, our friends lost no time when they understood the situation. They succeeded in making quite a sortie on the ranks of the enemy. The Senate struck out the obnoxious amendment and the House afterward concurred without a fight. I think from the letters I received that the protection people put up a good fight.

"We are glad that the model insectivorous and song bird law of Wyoming is still intact and believe we can so maintain it against all comers. The law is strengthened by every failure in attempts to amend it.

"Some effort was made to amend the game bird law by making the close season cover the months of spring migration, but this failed, owing to the efforts of the gun clubs, and because no one

was on the ground to lead the fight against them. The leaven is working, however, and I should not be surprised if we were strong enough to abolish spring shooting of water fowl in two years more. At any rate we will try it with better hopes of success than we had this year.

"Although no new Audubon societies were organized in Wyoming in 1903, public sentiment favoring bird protection has increased throughout the State.

"The effect of protection upon the wild birds could not be more pronounced than in Cheyenne, except in a locality where birds, under similar conditions, were more abundant. During the breeding season a number of the common forms are gradually assuming the aspect of indifference to man which is characteristic of the common fowl and pigeon, fearlessly occupying boxes and coigns of advantage about out-buildings, porches, etc., or nesting in the trees and vines of the dooryard. Foraging about the lawns in the immediate presence of the children of the household, is a daily occupation of the Robins. It has been surprising to observe how soon these common favorites respond to the *laissez faire* treatment and show their confidence in immunity from molestation. The fearlessness, one might almost say domesticity, of the Robins in Cheyenne is a matter of common knowledge among the people who are becoming pardonably proud of an uncommon condition, and jealously defend the law and doctrine which makes it possible.

"The Wyoming Society offers no suggestion for future work of the National Committee. Our population is sparse, and scattered over an area of about 98,000 square miles, and we are not in financial condition to offer aid to National work, although greatly interested in it. No doubt that a wide circulation of the educational leaflets would greatly assist us in the formation of new societies, but we are not now able to afford them in any considerable quantities.

"I hope the time will come when the annual report of the National Committee on bird protection can be published in quantity and given wide circulation through the Audubon Societies. It would materially encourage and aid bird protectionists everywhere."

THE THAYER FUND.

The Chairman submits the following statement of subscriptions and disbursements for the fiscal year ending November 1, 1903, to the correctness of which he certifies.

NEW YORK, NOV. 1, 1903.

WILLIAM DUTCHER, *Chairman,*

IN ACCOUNT WITH THAYER FUND.

Balance brought forward from 1902 \$143.77

RECEIPTS.

Subscriptions.

Thayer, A. H.	\$1000.00	Watson, J. S.	20.00
Thayer, J. E.	500.00	Greene, Miss M. A.	20.00
Fay, Mrs. S. B.	200.00	Van Name, W. G.	15.00
Freer, C. L.	100.00	Smith, W. M. and wife	15.00
Hemenway, A.	100.00	Parsons, Mrs. M. L.	10.00
Macy, Mrs. V. E.	50.00	Baird, Miss L. H.	10.00
Warren, Miss Cornelia	50.00	Herrick, H.	10.00
Stone, Mrs. E. J.	50.00	Hicks, J. D.	10.00
Dodge, W. E.	50.00	Emery, Mrs. L. J.	10.00
Warren, S. D.	50.00	Gelpcke, Miss A. C.	10.00
Dodge, C. H.	50.00	Gwynne, E. A.	10.00
Vanderbilt, G. W.	50.00	Wadsworth, Mrs. W. A.	10.00
Fuertes, L. A.	30.00	McEwen, D. C.	10.00
Raymond, C. H.	25.00	Collins, Miss E.	10.00
Hecker, F. J.	25.00	Dickerman, W. B.	10.00
Sage, Mrs. S. M.	25.00	Gatter, E. A.	10.00
Elliot, Mrs. M. L.	25.00	Shiras, G., 3rd.	10.00
Osgood, Miss E. L.	25.00	Derby Peabody Club	7.00
Kennedy, Mrs. J. L.	25.00	Robbins, R. E.	7.00
Robbins, R. C.	25.00	Varick, W. R.	5.00
Parker, E. L.	25.00	Day, F. M.	5.00
Eno, H. C.	25.00	Chamberlain, L. T.	5.00
Sharpe, Miss E. D.	25.00	Van Orden, Miss M. L.	5.00
Pinchot, Mrs. J. W.	25.00	Taylor, Mrs. L.	5.00
Dorr, G. B.	25.00	Thomas, Mrs. T.	5.00
Hoyt, F. R.	25.00	Gray, Mrs. F. T.	5.00
Crane, Miss C. L.	20.00	Shattuck, G. C.	5.00
Shaw, Mrs. P. A.	20.00	Howland, Miss I.	5.00
Conn. Audubon Society	20.00	Howland, Miss E.	5.00

Holt, Mrs. H.	5.00	Sand, Miss I. L.	5.00
Brooks, S.	5.00	19 contributions from	
Nicoll, B.	5.00	\$3.60 to \$1.00 each	34.60
Lord, Miss C.	5.00		
Willis, Mrs. A.	5.00	<i>Sale of Leaflets.</i>	
Wheeler, S. H.	5.00	Nat'l Committee No. 2	4.65
Cox, J. L.	5.00	" " " 3	31.13
Fairbanks, Mrs. E. C.	5.00	Ed. Leaflet No. 1	34.03
Students, Miss Baldwin's		" " " 2	30.33
school	5.00	" " " 3	27.88
Chafee, Z.	5.00	" " " 4	20.43
Bowman, E. A.	5.00	" " " 5	17.68
Duncan, A. B.	5.00	Protection Com. Reports	33.35
Ricketts, Miss J.	5.00	Florida Audubon Society	
Hardy, Mrs. R.	5.00	for payment of warden	60.00
Fairbanks Museum	5.00	" purchase of launch	300.00
Donaldson, J. J.	5.00	Deficit	158.90
Weld, G. F.	5.00		<u>\$3915.75</u>

EXPENDITURES.

<i>California.</i> — Printing and bird book		\$2.85
<i>Colorado.</i> — Warning notices	\$15.00	
Bird books for Junior Audubon Society	6.55	21.55
<i>Connecticut.</i> — Chairman, trav. expenses		2.10
<i>District of Columbia.</i> — Telegrams		3.17
<i>Florida.</i> — R. D. Hoyt, trav. expenses	20.00	
J. O. Fries, exp. in re Pelican Island	7.70	
" affidavits " "	4.50	
Map . . . . .	.50	
Express	2.15	
Negatives	1.00	
Telegrams	4.98	
Signs, Pelican Island	2.00	
Printing	2.75	
Wardens, four	575.00	
Purchase of launch 'Audubon'	300.00	
Expenses " "	76.09	996.67
<i>Georgia.</i> — Printing	39.05	
Printing and distributing 8,000 copies of Agric.		
Exp. Station Bulletin advocating model law	48.00	
Telegrams	8.59	
Express . . . . .	.75	
Certified copy of law	5.95	102.34

<i>Illinois.</i> — Printing	6.88	
Express	1.25	
Telegram . . . . .	.40	8.53
<i>Kansas.</i> — D. E. Lantz, trav. exp. to Legislature		6.25
<i>Louisiana.</i> — Express		1.30
<i>Maine.</i> — Wardens, eleven	325.00	
A. H. Norton, trav. exp. inspecting breeding colonies	91.08	
Warning notices	15.00	
“ “ posting same, D. S. Conary	5.00	
Express	1.90	
Telegrams . . . . .	.60	438.58
<i>Massachusetts.</i> — Warden, one	30.00	
Express	6.15	36.15
<i>Michigan.</i> — Printing	8.25	
Express . . . . .	.40	
Warden, one	15.00	23.65
<i>Nebraska.</i> — Express		1.15
<i>New Jersey.</i> — Trav. exp. W. De W. Miller, inspecting colonies	7.45	
Ac. cost lantern at lecture	7.50	
Chairman, trav. expenses	2.85	
Telegram . . . . .	.50	
Wardens, two	40.00	58.30
<i>New York.</i> — Chairman, trav. expenses	40.62	
E. Hicks, trav. expenses	10.00	
Telegrams	2.92	
Express	1.20	
Seville case in police court	2.80	
Wardens, three	70.00	127.54
<i>North Carolina.</i> — Warning notices	28.00	
Printing	40.75	
T. G. Pearson, trav. expenses	66.30	
Telegrams	2.33	
Express . . . . .	.65	
Wardens, three	304.00	442.03
<i>Ohio.</i> — Express . . . . .		.85
<i>Oregon.</i> — A. W. Anthony, trav. exp. to Legislature		32.20
<i>Pennsylvania.</i> — Printing	1.50	
Express . . . . .	.60	2.10

<i>Tennessee.</i> —T. G. Pearson's trav. exp. to Legislature	47.31	
Express	3.00	
Printing	30.00	
Telegram	1.42	81.73
<i>Texas.</i> —Warning notices	42.00	
Printing	11.50	
Express	1.40	
Telegrams	1.20	56.10
<i>Vermont.</i> —Printing	2.75	
Express . . . . .	.35	3.10
<i>Virginia.</i> —Warning notices	28.00	
Charts	2.40	
Express	2.20	
Printing	4.13	
Chairman, trav. exp. to Legislature	43.58	
Telegrams	3.70	
Wardens, eight	230.00	314.01
<i>Wyoming.</i> —Express		1.35

General Expenses of Committee.

Printing 100,000 educational leaflets and other leaflets and circulars	606.82	
Advertising . . . . .	.50	
Postage	264.52	
Protection Committee Reports (5000)	112.25	
Slides for Audubon Societies	33.85	
Clasp envelopes	21.69	
Press clippings	21.24	
Letter cases	11.17	
Card cabinet and cards	8.85	
Maps and Charts	2.25	
Bird Drawings for educational leaflets	54.00	
Express	2.71	
Memorial to War Dep't in re Philippine Islands	7.00	
Sundries	5.30	1152.15
		3915.75

Audubon Society Subscriptions to Fund for Clerk Hire.

Vermont	\$25.00	District of Columbia	50.00
Illinois	25.00	Florida	50.00
New Hampshire	25.00	Minnesota	25.00
Massachusetts	100.00	New York	100.00
Pennsylvania	50.00	Connecticut	25.00
Oregon	15.00	Ohio	25.00
Rhode Island	10.00	North Carolina	50.00
		Total	575.00

ENDOWMENT FUND FOR THE PROTECTION OF NORTH AMERICAN BIRDS.

Total amount of Fund, November 1, 1902 . . .	227.58
Interest earned	9.18
Total amount of Fund, November 1, 1903 . . .	\$236.76

Deposited in Freestone Savings Bank of Portland, Connecticut, by direction of Council of American Ornithologists' Union, incorporated in 1888 at Washington, District of Columbia.

FORM OF BEQUEST.

I do hereby give and bequeath to "The American Ornithologists' Union" of the City of Washington, District of Columbia, for the Endowment Fund for the Protection of North American Birds, — — — — — dollars.

LIST OF COMMITTEES.

A. O. U. PROTECTION COMMITTEE FOR 1904.

WILLIAM DUTCHER, *Chairman*, 525 Manhattan Ave., New York, N. Y.
 ABBOTT H. THAYER, Monadnock, N. H.
 ARTHUR H. NORTON, Westbrook, Maine.
 RALPH HOFFMANN, Belmont, Mass.
 JAMES H. HILL, New London, Conn.
 WILLIAM L. BAILY, Ardmore, Pa.
 FRANK C. KIRKWOOD, Baltimore, Md.
 T. GILBERT PEARSON, Greensboro, N. C.
 ROBERT W. WILLIAMS, Jr., Tallahassee, Fla.
 FRANK M. MILLER, New Orleans, La.
 FRANK BOND, Cheyenne, Wyoming.
 MRS. FLORENCE MERRIAM BAILEY, Washington, D. C.
 EDWARD B. CLARK, Chicago, Ills.
 MRS. LOUISE MCGOWN STEPHENSON, Helena, Arkansas.
 H. P. ATTWATER, Houston, Texas.
 A. W. ANTHONY, Portland, Oregon.

Subcommittee on Laws.

THEODORE S. PALMER, M. D., Washington, D. C.

A. O. U. COMMITTEE ON FOREIGN RELATIONS.

WILLIAM DUTCHER, New York, N. Y.
 FRANK M. CHAPMAN, New York, N. Y.
 CHARLES W. RICHMOND, M. D., Washington, D. C.
 THEODORE S. PALMER, M. D., Washington, D. C.
 RUTHVEN DEANE, Chicago, Ills.

NATIONAL COMMITTEE OF AUDUBON SOCIETIES.

WILLIAM DUTCHER, *Chairman*, 525 Manhattan Avenue, New York.

Subcommittee on Relations with Millinery Trade.

THEODORE S. PALMER, M. D., Washington, D. C.
 FRANK M. CHAPMAN, New York, N. Y.
 WILLIAM DUTCHER, New York, N. Y.

DIRECTORY OF AUDUBON SOCIETIES, 1904.

California. President, ALBERT K. SMILEY, Redlands; Secretary, Mrs. GEORGE S. GAY, Redlands.

Colorado. President, W. G. SPRAGUE, Denver; Secretary, Mrs. M. A. SHUTE, Capitol Bldg., Denver.

Connecticut. President, Mrs. M. O. WRIGHT, Fairfield; Secretary, Mrs. W. B. GLOVER, Fairfield.

Delaware. President, A. D. POOLE, cor. Seventh and West Sts., Wilmington; Secretary, Mrs. W. S. HILLES, 904 Market St., Wilmington.

District of Columbia. President, Gen. G. M. STERNBERG, U. S. A., Washington; Secretary, Mrs. J. D. PATTEN, 2212 R St., Washington.

Florida. President, L. F. DOMMERICH, New York, N. Y.; Secretary, Mrs. I. VANDERPOOL, Maitland.

Georgia. President, Dr. EUGENE E. MURPHEY, Augusta; Secretary, Prof. H. N. STARNES, Ga. Exp. Station, Experiment.

Illinois. President, RUTHVEN DEANE, 504 No. State St., Chicago; Secretary, Miss MARY DRUMMOND, 208 West St., Wheaton.

Indiana. President, WILLIAM WATSON WOOLLEN, Commercial Club, Indianapolis; Secretary, FLORENCE A. HOWE, Hillside Av., Indianapolis.

Iowa. President, Mrs. JAMES B. DIVER, Keokuk; Secretary, Mrs. L. E. FELT, 524 Concert St., Keokuk.

Schaller Audubon Society, Iowa. President, Mrs. H. A. McLAUGHLIN, Schaller; Secretary, Miss J. E. HAMAND, Schaller.

Kentucky. President, Mrs. MONTGOMERY MERRITT, Henderson; Secretary, INGRAM CROCKETT, Henderson.

Louisiana. President, FRANK M. MILLER, 203 Hennon Bldg., New Orleans; Secretary, Miss ANITA PRING, 1449 Arabella St., New Orleans.

Maine. President, Prof. A. L. LANE, Waterville; Secretary, Mrs. C. B. TUTTLE, Waterville.

Massachusetts. President, WILLIAM BREWSTER, Cambridge; Secretary, Miss H. E. RICHARDS, Society of Natural History, Boston.

Maryland. President, W. C. A. HAMMEL, State Normal School, Baltimore; Secretary, Miss A. W. WHITNEY, 715 St. Paul St., Baltimore.

Michigan. President, —; Secretary, ALEX. W. BLAIN, JR., 131 Elmwood Av., Detroit.

Minnesota. President, JOHN W. TAYLOR, St. Paul; Secretary, Miss S. L. PUTNAM, 229 Eighth Av., S. E., Minneapolis.

Lake City Audubon Society, Minnesota. President, Mrs. G. F. BENSON, Lake City; Secretary, Mrs. C. A. KOCH, Lake City.

Missouri. President, WALTER J. BLAKELY, St. Louis; Secretary, AUGUST REESE, 2516 North 14th St., St. Louis.

Nebraska. President, Dr. ROBERT H. WOLCOTT, Lincoln; Secretary, WILSON TOUT, Dunbar.

Nebraska, Omaha. President, Dr. L. R. TOWNE, Omaha; Secretary, Miss JOY HIGGINS, 544 So. Thirtieth St., Omaha.

New Hampshire. President, Mrs. ARTHUR E. CLARK, Manchester; Secretary, Mrs. F. W. BATCHELDER, Manchester.

New York. President, MORRIS K. JESUP, New York; Secretary, Miss EMMA H. LOCKWOOD, 243 West 75th St., New York.

New Jersey. President, ALEXANDER GILBERT, Plainfield; Secretary, Miss JULIA S. SCRIBNER, 510 E. Front St., Plainfield.

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